# CERTIFIED REBUILD



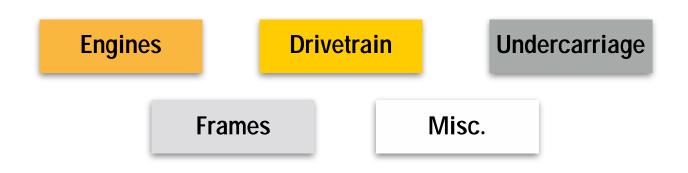


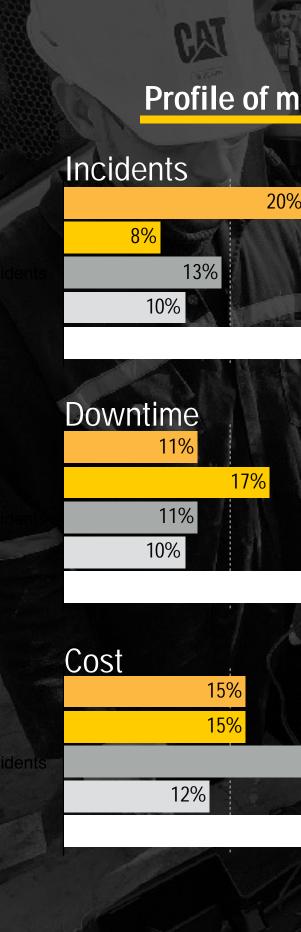


## YOUR BUSINESS NEEDS SOLUTIONS TO DEAL WITH AGEING EQUIPMENT

Your business depends on having the right equipment for the job. Mature equipment can fail in multiple ways, but among the most common components that cause downtime are its least notable parts.

But buying new equipment is not always the best business decision.

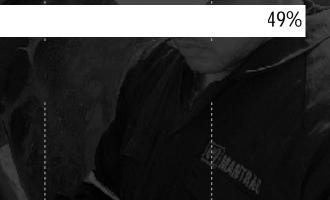




#### Profile of mature machine failures

28%

30%







## WE OFFER SIX REBUILD PROGRAMS TO GIVE EQUIPMENT A SECOND LIFE

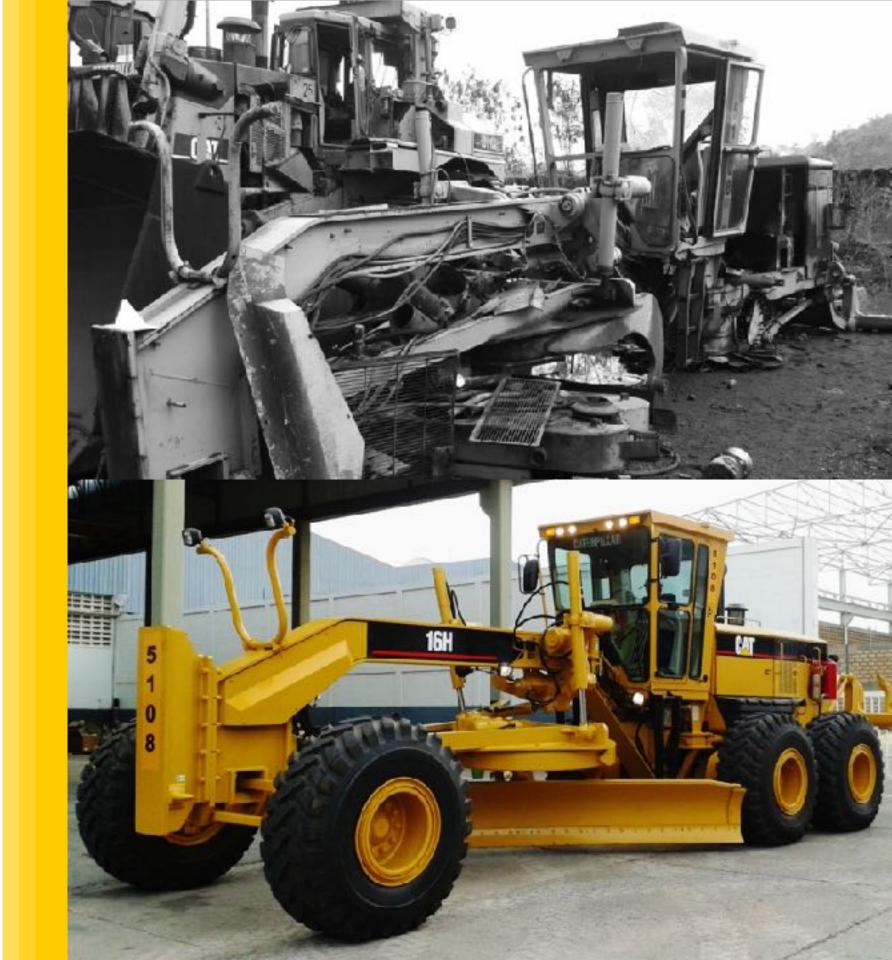
CCR: Certified Full Machine Rebuild

**CPT**: Certified Power Train Rebuild (CPT "Plus" covers any additional parts, systems or components)

CHR: Certified Hydraulic Rebuild (HEX)

**CER**: Certified Commercial Engine Rebuild

**CMCR:** Certified Machine Component Rebuild





# **REBUILD GUARANTEES**



All machines are rebuilt by Mantrac, no third parties involved



Only original, genuine Cat parts used for value retention and peace of mind



Reconditioned according to original Cat machine standards

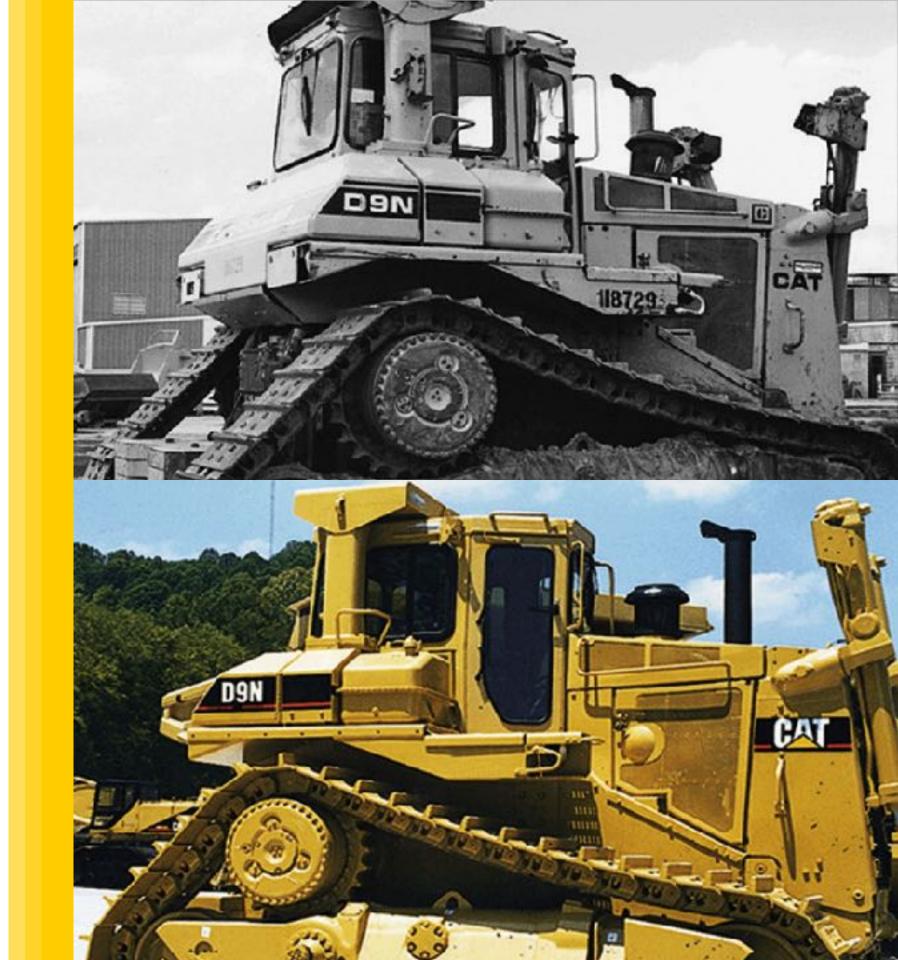


Machine repair data available for your auditing

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Attachments are covered within the rebuild, depending on feasibility





## **10 STEPS TO A QUALITY REBUILD**

Each Cat Certified Rebuild follows a strict process for performance and satisfaction.





Step 2:

#### Step 1: Inspection & evaluation

Complete machine inspection and evaluation including visual inspection and strip down. SOS evaluation determines if rebuild is required.

#### Disassembly

Hoses, belts, seals, gaskets, bearings, knobs, wiring, switches and gauges are replaced. Other parts are inspected and replaced with Reman or reconditioned parts.



#### Step 3: Reconditioning

Frames are welded or reinforced as needed, linkages are replaced, hydraulic systems are renewed, EC modules and software is replaced.



#### Step 4:

#### **Engineering updates**

Addition of any post-manufacture improvements.





#### Step 5:

#### Power train tests

Inspection and reconditioning of engine, fuel system, transmission, torque converter, differential, final drives and radiator.

MANTRAC CAT

## **10 STEPS TO A QUALITY REBUILD**

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Step 6: Reassembly

Maintenance of critical torques, clearances, and pressure settings. Replacement of engine wiring harnesses.

Step 7: **Performance testing** 

Turbocharger boost, throttle response, stall speed rpm, transmission and steering clutch response, hydraulic and pilot relief valve pressures, system cleanliness of ISO 18/15, and field and shop performance matching.



Step 8:

Repainting

Repainting, model identity graphics, Cat Certified Rebuild decal issued.



Step 9:

**New serial/pin** 

New serial or product identification number, like-new standard warranty applied.





#### **Step 10**: **Customer evaluation**

Completion upon your total satisfaction.



## **A WIDE RANGE OF BENEFITS**

Replacement of approx.3,000 parts for power train

Extended coverage on power train (3y/ 5,000; 1y/6,000; 2y/10,000, and more)

- Replacement of approx. 7,000 parts for machines
- No depreciation of a rebuilt asset

- Budget flexibility (CAPEX, Repair and maintenance expenses)
- Stay with the same machine size & technology
- Provides improved machine availability

#### Includes critical engineering updates and optional upgrades

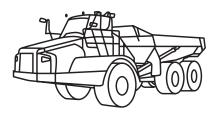
Lower warranty expense than new, with warranty on all added parts

New machine Product Identification Number

Lower priced Cat Product Line option with Mantrac support services

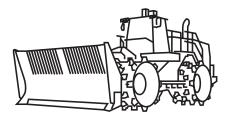


# THE CAT CERTIFIED REBUILD PROGRAM IS AVAILABLE FOR:



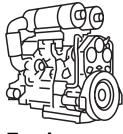
Articulated trucks

725,730, 735, 740, 740B



Compactors

836, 815B/F, 816B/F, 825G, 826C/G/H, 836G/H/K



Engines

3116, 3306, 3406A/B/C, 3408A/B/C/E, 3412A/C, 3456, 3508A/B, 3512A/B/C, 3516A/B, 3606, 3608, 3612, 3616, 3618, 3126B, C7, C9, C10, C11, C12, C13, C15, C18, C27, C32 G3304, G3306, G3406, G3408, G3412, G3508, G3512, G3516A/B/C, G3520C, G3606A/B,

G3608, G3612, G3616, PM3516



Integrated toolcarriers IT28B/F/G/H, IT62G/H



**Underground mining loaders** 

R1300G, R1600A/G/H, R1700G, R2900A/G/H, R3000H



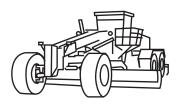
#### Hydraulic excavators

320A/B/C/D/N/S, 322A/B, 325, 330A/B/C/D, 350, 375, 5080, 5130A/B, 5230, 245B/D, 312C, 318C, 319C/D, 323D, 324D, 325A/B/C/D, 328D, 329D, 332C, 336D/E, 336E, 345B/C/D, 349D/E, 365B/C, 374D/F, 375, 385B/C, 390D, 5110B, 568FM, M315A/C/D, M316C/D, M320, M322C/D, M325C/D



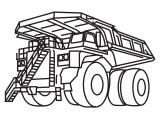


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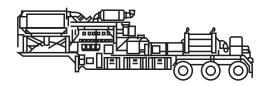
#### Motor graders

120G/H/K, 12G/H/M, 130G, 135H, 140G/H/K/M, 143H, 14H/M, 160H/K/M, 163H, 16G/H/M, 24H/M



#### **Off-highway trucks**

769C/D, 770, 771C/D, 772, 773B/D/E/F/G, 775B/D/E/F, 776B/D, 777A/B/C/D/E/F/G, 785A/B/C/D, 789A/B/C/D/D XQ, 793A/B/C/C XQ/D/F, 797A/B/F



#### Well stimulation pump trailers

SPF343, SPF343C



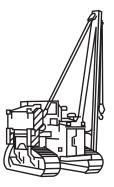
Track skidders

527



Track-type tractors

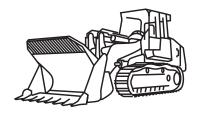
D10N/R/T/T2, D11N/R/T, D5B/G/H/K/M/N, D6H/K/M/N/R/T, D7E, D7G/H/R, D8L/N/R/ T, D9L/N/R/T



Track-type tractor pipelayers

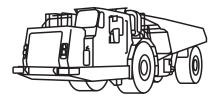
578, 589, 561D, 572R





#### Track-type loaders

953A/B/C/D, 963, 973, 933C, 939C, 953B, 963B/C/D, 973C/D, 977L



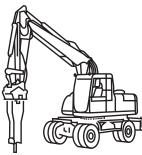
#### Underground mining trucks

AD30, AD45A/B, AD55A/B, AD60, AE40, R1300, R1600



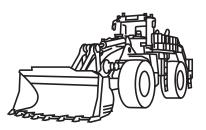


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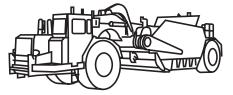
#### Wheel excavators

M316D, M318A/C/D, M322C, M325D



#### Wheel loaders

994, 914G, 924G/H, 928F/G/H, 930A/G/H/K, 936F, 938F/G/H/K, 950B/E/F/G/H/K, 960F, 962G/H, 966D/E/F/G/H/K, 970F, 972G/H/K, 980C/F/G/H/K/M, 988B/F/G/H/K, 990A/H/K, 992C/D/G/K, 993K, 994D/F/H, 996H



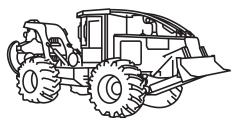
Wheel tractor scrapers

613C, 615C, 621E/F/G, 623E/F/G/H, 627E/F/G, 631E/G, 633D/E, 637D/E/G, 651E, 657E, 657G



Wheel dozers

814A/B/F/G, 815, 844, 824C/G/H, 826G, 834B/G/H/K, 844H, 854G/K



Wheel skidders

515, 525, 545, 518C, 525B/C, 535B/C, 545C/D, 621G, 637G





## CCR IN ACTION: A CASE STUDY A LANDFILL OPERATION









## **CCR IN ACTION: A CASE STUDY A LANDFILL OPERATION**

#### Situation

A customer was in immediate need of equipment to meet demand at a landfill operation, but needed to:

- Limit expenses, yet procure productive machinery
- Become operational as soon as possible
- > Maximise jobsite profitability

#### **Recommendation**

A business case was created for rebuilding an existing machine to save costs while meeting business goals:

- Begin with a "pile of scrap" D6R
- >
- Go through a Certified Rebuild process >
- > Include a System-One undercarriage



D6R had been inoperative for over 1 year





## **CCR IN ACTION: A CASE STUDY A LANDFILL OPERATION**

### Result

Based on the performance of the rebuilt D6R after delivery, the customer committed to:

- > A second D6R rebuild
- > The purchase of a new D6R
- > The program provided the customer two certified rebuilt D6R's for the price one new machine









