





# **Engineered Solutions**

Caterpillar offers custom-designed, heavy-duty engineered belt systems solutions and belt products to handle the most demanding bulk-material handling requirements in both underground and surface applications. Cat® belt terminal groups are precision engineered to meet each customer's mining or tunneling requirements and experienced technicians are available to supervise the installation and ensure a smooth startup.

# **Conveyor Drives**

- Designed to provide power based on conveyor specifications
- Parallel or alignment-free design option
- Alignment-free design gives the following benefits
  - Ease of setup and installation
  - Ease of transportation in and around mine
  - Narrower overall drive width
  - Universal mounting left-hand or right-hand mounting
  - Reduced operating maintenance
- Supports both mechanical and electrical technologies (Fluid Couplings or Variable Frequency Drive (VFD), etc.)
- Engineered class pulleys

#### **Remote Discharges**

- Available in floor-mounted or roof-hung configurations
- Remote A-frame design
- Attached boom design with ratchet jacks
- Designed for in-line, 30-, 60- or 90-degree transfer points
- Includes engineered class pulley
  - Snub pulley available
  - Integrated tail pulley available on A-frame design





# **Belt Take Ups/Storage Units**

- Cat take-ups/storage units apply accurate and very responsive belt tension
- Various designs available to meet customer needs
  - Hydraulic or electric winch design
  - Hydraulic cylinder design
- Active travel length/belt storage per design requirements
- Each take-up pulley is a tension-specific, engineered class pulley
  - Designed for the max force each cylinder or winch can provide
  - Eliminates any weak links in the entire take-up system

### **Loading Sections**

- Cat loading sections are designed and built for the steady, efficient transfer of extracted materials
- Two common designs: in-line and off-set
- Intermediate and tail loading sections offer either impact resistant idlers or EXALON® impact slider beds
- Rigid, heavy-duty engineered loading frame
- Designed to receive discharges from various haulage equipment

#### **Engineered Class Pulleys**

- Cat engineered class pulleys are each designed to meet the specific power and tension needs of the conveyor system
- Two design options: Turbo-Disc and T-Bottom
- Design features:
  - Profiled end-discs machined from solid steel plate eliminating all welds in areas of high-stress concentrations
  - Keyless locking elements eliminate the unfavorable hub-to-disc weld and pre-stressing of the end-disc during assembly
  - Proprietary welding techniques ensuring complete penetration—1 Bevel Groove weld vs. 3 Circumferential fillet welds
  - A machined "pipe" rim (A53 Grade B pipe) eliminating the need for center discs/stiffeners
  - Static balancing
  - Standard 3 year pulley warranty





# **Engineered Belt Terminal Groups**

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at mining.cat.com and www.cat.com

© 2011 Caterpillar Inc.

All rights reserved

AEXQ0591-01

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

