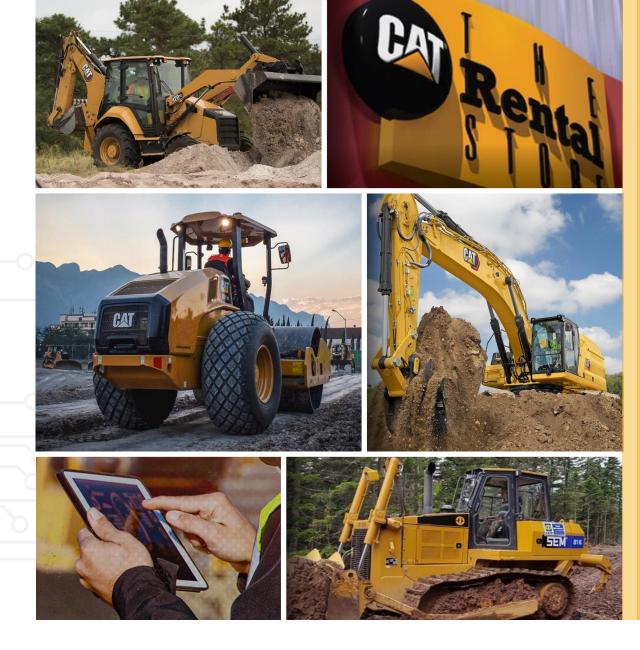
VISIONLINK TECHNOLOGY

TURN DATA INTO ACTIONABLE INSIGHTS

IPLOCA NOVEL CONSTRUCTION APRIL 2024

CONSTRUCTION INDUSTRIES





VISIONLINK TECHNOLOGY

TURN DATA INTO ACTIONABLE INSIGHTS

AGENDA

INTRODUCTION

HOW IT WORKS

APPLICATION DASHBOARDS





Cat Construction Technology Portfolio



Making the jobsite more productive, efficient and safe



CAT GRADE Automate grading, boost precision, speed and efficiency



CAT COMPACT Meet compaction targets faster, more uniformly and in fewer passes



CAT PAYLOAD Help reduce load times, optimize loading efficiency and increase jobsite productivity



CAT DETECT Expanded view of the working environment around equipment keeps people and assets safe



CAT COMMAND Remote control offering improves operator safety, equipment availability and site productivity



VISIONLINK Tracking individual asset performance and needs to increase uptime and lower costs



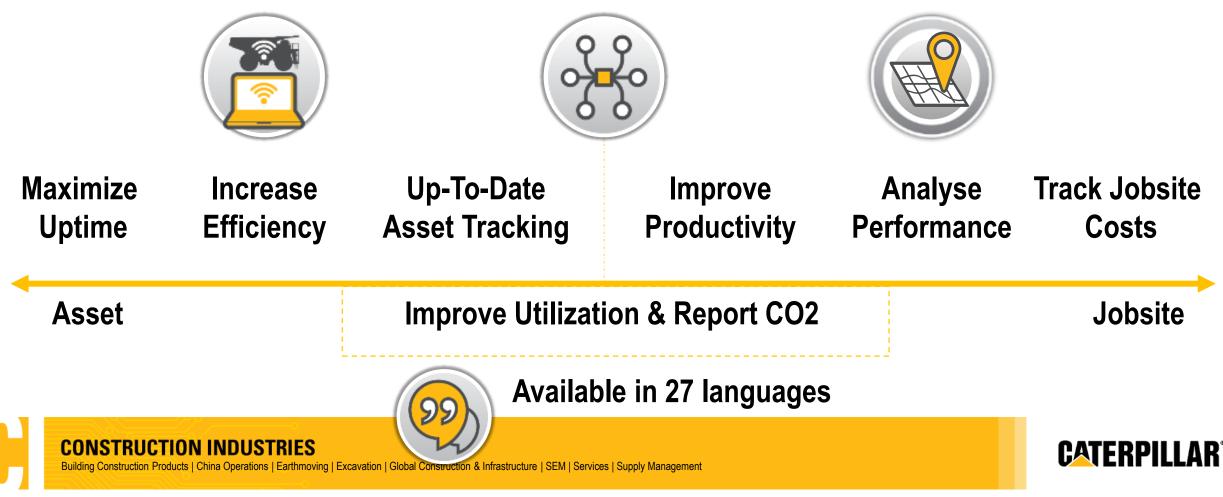
VISIONLINK PRODUCTIVITY Gather real-time data to track equipment use and health across your fleet



CONSTRUCTION INDUSTRIES



VISION_INK[®] PRODUCTIVITY





CAT

© 2023 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, VisionLink, their respective logos, "Caterpillar Corporate Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission. PEXQ1158-03 Global

VISIONLINK TECHNOLOGY TURN DATA INTO ACTIONABLE INSIGHTS

® EQUIPMENT MANAGEMEN

Are you ready to take the guesswork out of fleet management? VisionLink® delivers easy-to-understand actionable insights to help you make informed decisions at every turn. Get the most out of your entire fleet - from one single, intuitive, and trusted application.

COMPLETE VISIBILITY TO MANAGE YOUR ENTIRE FLEET

VisionLink[®] is a cloud-based software application:

- That takes the guesswork out of fleet management with key insights to *maximize performance* regardless of fleet size or equipment manufacturer.
- Receive equipment data seamlessly to your desktop or mobile device.
- All from a convenient centralized solution allowing you to make informed decisions.

CATERPILLAR

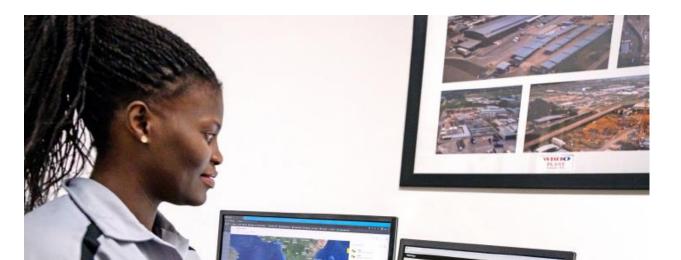
CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

Caterpillar: Confidential Green

MORE THAN ONE MILLION+ CONNECTED ASSETS GLOBALLY





BETTER DATA, BETTER DECISIONS

ELIMINATE GUESSWORK

MONITOR ENTIRE FLEET

Get actionable telematics data and manage mixed OEM fleets via one interface. Track location, operating hours, fuel levels, and overall utilization.

MAXIMIZE UPTIME

Monitor equipment health, fault codes, fluid analysis, and inspection due dates. Reduce unplanned downtime with critical alerts. Order parts and schedule service within the platform.

OPTIMIZE UTILIZATION

Manage assets by projects, groups, or geofences. Set utilization targets and monitor performance. Make informed, data-based decisions to reduce operating costs.

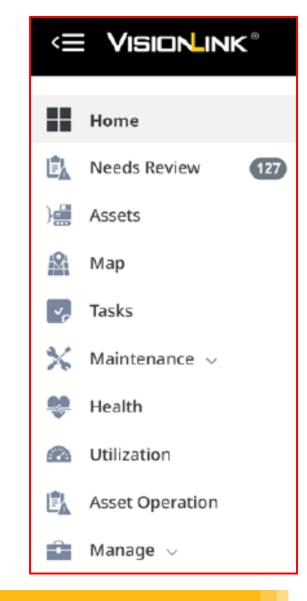
CATERPILLAR

CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

APPLICATION DASHBOARDS ACTIONABLE INSIGHTS AT-A-GLANCE





CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management



HOME DASHBOARD

The Home dashboard is the VisionLink default landing page. It provides:

- <u>A global search</u> bar that lets you search for • product families and groups in addition to assets, makes, and models.
- Easily access features such as requesting \bullet service, purchasing parts, assigning inspections, recording services, and jobsites.
- My Tasks shows tasks due within the next seven days, along with overdue tasks and tasks due today.
- Maintenance review gives quick access to \circ overdue and upcoming maintenance for your fleet.
- Quick Links provide access to other Cat \bullet applications.

| E VISIONLINK® | | | | | | | | |
|------------------|--------------------------------------|---|--|---|--|--|--|--|
| Home | | | | ll. | 1. Sector and the sec | | | |
| Needs Review 127 | | | | | 6 | | | |
| Assets | Q Search assets, make, | , model, etc | | | | | | |
| Мар | | | | | 6 | | | |
| Tasks | Assets - GEOMANAGER MS4 | | | | | | | |
| Maintenance 🗸 | | | | | and the second | | | |
| Health | X Request Service | ୍ମ Buy Parts | Assign Inspection | Record Service | | | | |
| Utilization | Request service | buyraits | Assigntispection | Necora Se | VICE | | | |
| Asset Operation | | | | | | | | |
| Manage 🗸 | My Tasks (Next 7 days) | | | | | | | |
| | Maintenance | You have no tasks due or coming due in Maintenance | | | | | | |
| | Overdue | • Due this week Feb 20 to 26, 2023 | • Due next week Feb 27 to Mar 5, 2023 | Due next 30 days Feb 21 to Mar 23, 2023 | | | | |
| | 8 services | 13 services | 9 services | 53 services | | | | |
| | Quick Links 🛞 | | | | | | | |
| | Ø | P | P | P | P | | | |
| | VisionLink Deal Productivity Port | er Service Cat Remote al Asset Monitoring | Cat Remote Fleet Vision 2.0 | Cat MineStar Health Equipment | Data Visua | | | |



CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

VISION

🕅 Needs Review

Home

8 Map Tasks ×.,

The place in VisionLink where you can see assets that require attention on a daily basis enabling you to plan any maintenance activities proactively.

- Check out fault codes, fluid analysis, and inspections
- Add notes and history for each asset
- Assign tasks to complete pending issues
- Review detailed inspection reports for assets
- Order parts with direct integration with parts.cat.com
- Request service from your local Cat Dealer

| \in VISIONLINK $^{\circ}$ | | | | | | | Ƴ Fi | lters | Q Search assets | JOBSITE |
|-----------------------------|-------------------------------------|---------------------|--------|------------|----------|---------------------|-----------------------|--|-----------------|-------------------------------------|
| Home | C Last Updated: 02/09/ | /2023; 07:12 PM CST | Ø | ~ / | Active | Resolved | Dismissed | | | Data s |
| 🗓 Needs Review 1 1 1 | Health Issues | | 86 New | | Assets | | | Totals | | Service Meter |
| Assets | • 52 HIGH | 35 MEDIUM | | ~ | -36 | - VL399123 | 66 New - CAT 730 | 42 HIGH 0 LOW | 24 MEDIUM | 30,369.4 Hours 01/27/2023; 11:28 |
| 🔮 Мар | Maintenance | | 40 New | ~ | 0 | US00348 VLX01321 | 4 New - CAT 320 | 2 HIGH 0 LOW | 2 MEDIUM | 813.6 Hours 02/23/2023; 01:35 |
| 😨 Tasks | 4 COMPLETED | • 8 OVERDUE | 40 New | ~ | - | 623K VLB0027 | 2 New 8 - CAT 623K | 2 HIGH 0 LOW | • 0 MEDIUM | 408.2 Hours 02/23/2023; 08:29 |
| ☆ Maintenance 〜 ♥ Health | 28 UPCOMING | | | ~ | | 920 VL400215 | 1 New - CAT 920-14 | 1 HIGH 0 LOW | • 0 MEDIUM | 53.3 Hours 02/23/2023; 10:23 |
| Utilization | Device Status | | 3 New | ~ | Que. | D5-17 VLA01111 | 1 New | 1 HIGH 0 LOW | • 0 MEDIUM | 954.7 Hours 02/23/2023; 09:15 |
| Asset Operation | 3 NOT REPORTING | | | ~ | 12 mg | D6XE VLC00324 | 1 New - CAT D6 | 1 HIGH 0 LOW | • 0 MEDIUM | 1,437.8 Hours |
| î Manage 🗸 | | | | ~ | | US00347 VLN00345 | 3 New | 0 HIGH 0 LOW | 3 MEDIUM | 208.1 Hours 02/16/2023; 03:42 |
| | | | | ~ | 1 | M318 VL700156 | 3 New - CAT M318 | 0 HIGH 0 LOW | • 3 MEDIUM | 144.4 Hours 02/23/2023; 11:17 |
| | | | | ~ | 3 | - VL500081 | 1 New | 0 HIGH 0 LOW | • 1 MEDIUM | 1,223.8 Hours 02/23/2023; 08:29 |
| | | | | ~ | 100 | | - 1 New | 0 HIGH 0 LOW | • 1 MEDIUM | 482.4 Hours 02/23/2023; 06:14 |
| | | | | ~ | | - | 1 New 9 - CAT 994K | 0 HIGH 0 LOW | • 1 MEDIUM | 10.8 Hours 02/15/2023: 04:55 |



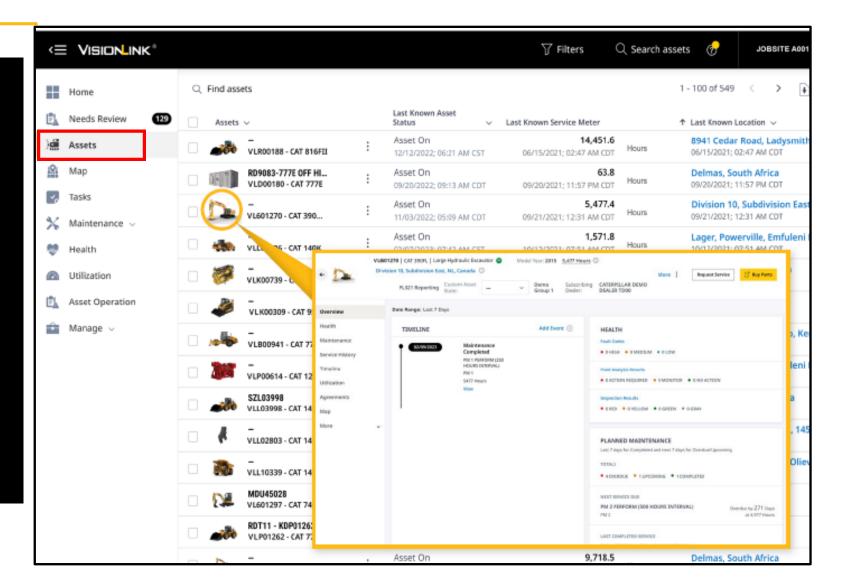
CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management



Provides in-depth information about individual asset status, hour meter, last known location, and more:

- Asset status
- Service meter
- Hour meter
- Last reporting location
- Next service
- Ownership status owned, rental, leased or sold
- Fuel level percentage
- DEF level percentage
- Geofence locations
- And more (customizable)



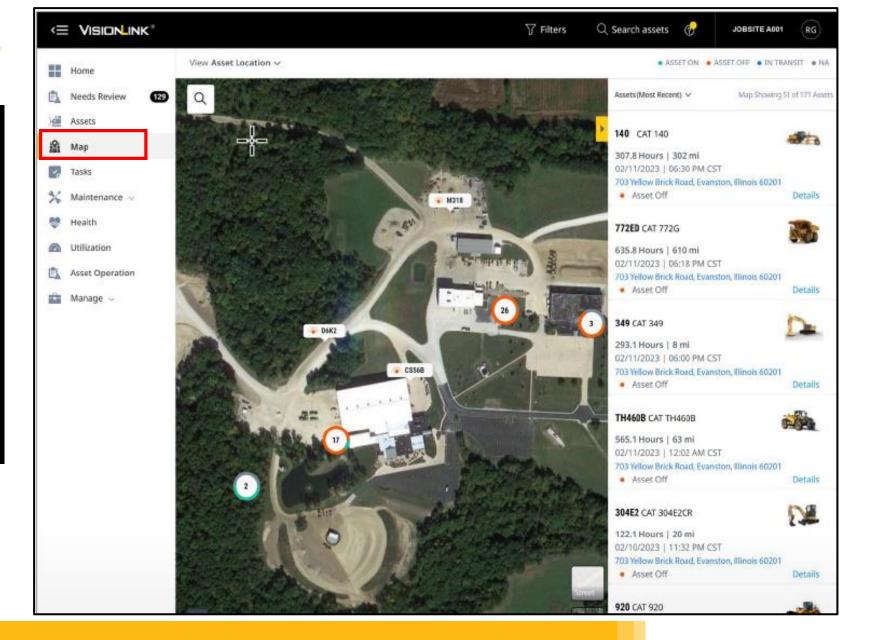
CONSTRUCTION INDUSTRIES



MAP DASHBOARD

Track all your asset's positions 24/7 using Google Maps functionality and help you to visualize:

- Asset location
- Fault code summary
- Fault code locations
- Fluid analysis
- Inspections
- Asset maintenance
- Cat dealer locations
- Geofence overlay





CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

7 TASKS DASHBOARD

Task functionality enables people to be assigned to a project with a specific severity level and due date. Assigning tasks can enhance productivity and increase efficiency by monitoring an assignment from beginning to end, an essential part of managing your fleet. Centralized task management views all task details including:

- Asset information
- Task status
- Task assignee
- Task due date
- Task severity
- Task creation date
- Task creator
- Download task reports

| Home | All tasks Assigned to me | | | |
|---------------------------------|---|---|--------------------------------------|-----------------|
| Needs Review 12 | Show Completed Q Find Tasks | 🖺 Curr | ent Week (02/06/2023 - 02/12/2023) 🗸 | 1-7 of 7 < > |
|) dissets | Tasks 🗸 | ssets Task Status 🗸 | Assignee 🗸 | Task Due Date 🗸 |
| 🙊 Map | Fault Code : Armrest Raised While Steering Lock Switch I | 988KXEtest VLX00302 - C • SCHEDULED | Wing Choi ~ | 🛱 02/13/2023 🗸 |
| Tasks | Fault Code : Park Brake Disabled Due to System Fault | - • UNDER REVI | IEW Brandon Pickett ~ | 🗂 02/12/2023 🗸 |
| X Maintenance ↓ | Fault Code : High Transmission Oil Temperature | - • UNDER REVI | IEW Jean Charles Cotte 🗸 | 🛱 02/12/2023 v |
| Utilization | Fault Code : Accumulator Gas Pressure Test Overdue | - • UNDER REVI | IEW Todd Farmer ~ | 🛱 02/12/2023 v |
| Asset Operation | Fault Code : Secondary Steering Pump Pressure Not | - • UNDER REVI | IEW Salvador Galvez Gamez 🗸 | 🛱 02/12/2023 v |
| 💼 Manage 🗸 | Fault Code : Low Steering Pump Pressure | - • UNDER REVI | IEW Serena Janssen 🗸 | 🖺 02/12/2023 v |
| | Fault Code : Low Steering Pump Pressure | - • UNDER REVI | IEW Bina Sawani ~ | 🛱 02/12/2023 🗸 |
| | Planned Maintenance : PM 1 (250 HOUR INTERVAL) | 05-17 VLA01111 - C • SCHEDULED | Ramu Aitha 🗸 🗸 | 🗂 01/31/2023 🗸 |
| * Task Title | 6/2022 ; 03:34 PM CDT | Implete Last Location 61528, IL, United States 03/25/2022; 11:33 AM CDT 03/25/2022; 11:33 AM CDT Cooperative Cooperative Flanned Maintenance Next Service Needed PM 1 PERFORMINITIAL (250 HOURS INTERVAL) | × | |
| Attachments | | Due 03/01/2023 Due in 17 Days | | |

CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management



MAINTENANCE DASHBOARD

Overview of the maintenance needs for all assets managed within VisionLink:

- View maintenance summaries for all \bullet assets - fault codes, projected service meter, last reported location
- Order parts with direct integration with parts.cat.com
- Request service \bullet
- View existing service requests
- View a complete maintenance history for an asset
- Download summary reports

| ×Ξ | VISION_INK* | | | | | V | Filters C | २ Search assets | or 😚 | BSITE A001 RG | |
|-----|----------------------------------|----------------|----------------------------------|-------------------------|--|---|---|---|--|--|--|
| | Home | Group by | Asset 🗸 | 🗄 02/03 | 1/2023 - 03/02/2023 Y Q | Find asset | | | 1 - 65 (| of 65 < > : | |
| EL | Needs Review 129 | Asset | | | Totals | | Projected Servi | ce Meter 🛈 | Location | | |
|)鸕 | Assets | · 🗅 | - VLKX00001 - CAT | 315 | 3 OVERDUE 0 UPCOMING 0 COMPLETED | | 1,475 Hours 02/09/2023; 07:24 PM CST | | Hyogo Pref.,Ono City,Sugetac 02/09/2023; 07:23 PM CST | | |
| 191 | Мар | ~ " | - VLB00251 - CAT | 950M | 3 OVERDUE 0 UPCOMING 0 COMPLETED | | 8,831 Hours 12/16/2022; 09:2 | 8,831 Hours 12/16/2022; 09:26 AM CST | | 28149 Caterpillar Ln, Washin 01/20/2023; 06:25 PM CST | |
| | Tasks | ~ 🔊 | DASSET16 VLY00105 - CAT 930M | | 3 OVERDUE 0 UPCOMING 0 COMPLETED | | 5,148 Hours 09/15/2022; 07: | 5,148 Hours 09/15/2022; 07:12 PM CDT | | 1336 Chamberlain Rd, Aubur 11/20/2022; 06:12 PM CST | |
| * | Maintenance ^ | × 📣 | DUT772 VL600101 - CAT | CS66B | 2 OVERDUE 2 UPCOMING 0 COMPLETED | | 1,149 Hours 02/10/2023; 11:53 AM CST | | 13089 George Weber Dr, Rog 02/10/2023; 11:53 AM CST | | |
| | Settings And Enrollment | - 6 | - VL201716 - CAT | | 2 OVERDUE 2 UPCOMING 0 COMPLETED | | 183 Hours 02/10/2023; 02: | 59 PM CST | 27527, NC, U 02/10/2023; 02 | Jnited States 2:59 PM CST | |
| * | Health | ~ 🖉 | - VLP24318 | | 2 OVERDUE 2 UPCOMING 0 COMPLETED | 922 mi 05/24/2021; 01:32 PM CDT 5,477 Hours 09/21/2021; 12:31 AM CDT | | Engine Dr, Chillicothe, Illinois 04/27/2021; 10:16 AM CDT Division 10, Subdivision East 09/21/2021; 12:31 AM CDT | | | |
| | Utilization | ~ (D) | - VL601270 - CAT 3 | 90 | 4 OVERDUE 1 UPCOMING 0 COMPLETED | | | | | | |
| Ē | Asset Operation | | | | 2 OVERDUE 0 UPCOMING VL601270 [CAT 3905FL] Large Hydraulic Excavator Model VLau: 2015 5,47 | | 16,481 Hours | and the second | | 28194 Caterpillar Ln, Washin 1 PM CST | |
| | Manage 🗸 | - 🕅 | BHL INDU VL201695 - C | - 🕰 | Division 10, Subdivision Ease, NL, Canada PL321 Reporting Custom Asset | Demo S. | ubicriting CATERPILLAR DE | More : Request Serv | ike 🛛 🖉 Buy Parts | Street, Tiruvall 6 PM CST | |
| | | ~ D# | - VL100102 - CAT | Overview Health | NEXT SERVICE DUE () PM 3 PERFORM (1000 HOUR, Coverdue | TOTALS () • 4 OVERDUE | • 1 UPCOMENG | LAST COMPLETED SERVICE () | Completed 10/1 | Weber Dr, Rog 6 AM CST | |
| | | VL300100 - CAT | Maintenance Service History | PM 8 | g TSIN SIRVICE HOLE MAINTINUMEL | | | Southlake, Tex 9 PM CST | | | |
| | | × 🐲 | - VL600154 - CAT | Timeline Utilization | | Find occurre | Due 02/13/2023 | 1-Sef5 | <) 💽 • | Ilar Ln, Washin 1 PM CST | |
| | | v 🦥 | - VL603476 - CAT | Agreements Mep | 2000 SERVICE HOUR MAINTENANCE PM 2 PERFORM (500 HOURS INTER., PM 2 | OVERDUE | at 3,000 Hours Date 02/13/2023 at 1,451 Hours | Divertice by 94 Days 307 Hours Divertice by 269 Days 1.575 Hours | 1 | <mark>7, Texas 79754</mark> , 4 PM CST | |
| | | 22005 | - | More | PM 3 PERFORM (1000 HOURS INTE_ | overbue | Due 02/13/2023 at 1.331 Hours Due 02/13/2023 | Overdue by 489 Days L378 Hours Overdue by 115 Days | 1 | ted States | |
| | | | VLX00301 - CA1 | | PM 4 PERFORM (2000 HOURS INTE PM 4 PM 2 PERFORM (500 HOURS INTER | · UPCOMINE | Des 03/06/2023 | Due in 21 Days | 1 | 6 AM CST | |
| | | × 🥔 | 321AA456 VL63103166 - Z | | 963 | | at 30471 Hours | 524 Hours | | | |
| | | ~ 🃸 | - VL500081 - CAT | | | | | | | tited Kingdom 2 PM CST | |
| | | ~ 43 00 | Sierra 1500-00 VL C26009 - GN | | | | | | | ted States 7 AM CDT | |
| | VL800101 - CAT MD | | | | 1 OVERDUE 2 UPCOMING 0 COMPLETED | 3,314 Hours 02/10/2023; 07: | 38 AM CST | 3501 N FM 1417, Denison, Tex 02/10/2023; 07:37 AM CST | | | |
| | IDE OVERDUE 1 UPCOMING | | | | | | | 1150 N Hum | mingbird Ln, Dic | | |

CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management



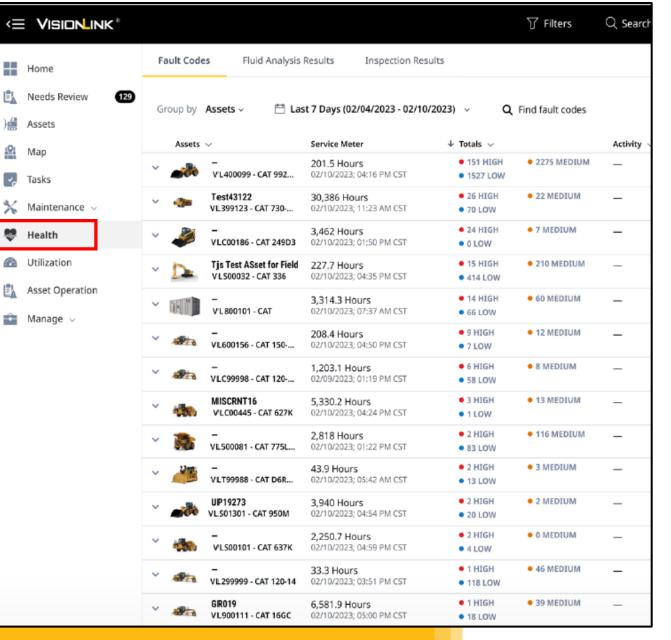
HEALTH DASHBOARD

Fleet managers can use the Health dashboard to identify problems or opportunities when they happen. Catching and resolving issues as early as possible keeps the asset running and decreases the likelihood of additional problems.

The Health dashboard helps you to stay up-to-date on your machine health:

- Summary of fault codes, fluid analysis, and inspection results
- View information for previous days, date ranges or the current day
- Review service histories for assets
- Integrated with Cat S·O·SSM fluid analysis service and Cat Inspect App
- View fault code details from the Cat Service Information System
- Download health reports and inspection results

CONSTRUCTION INDUSTRIES

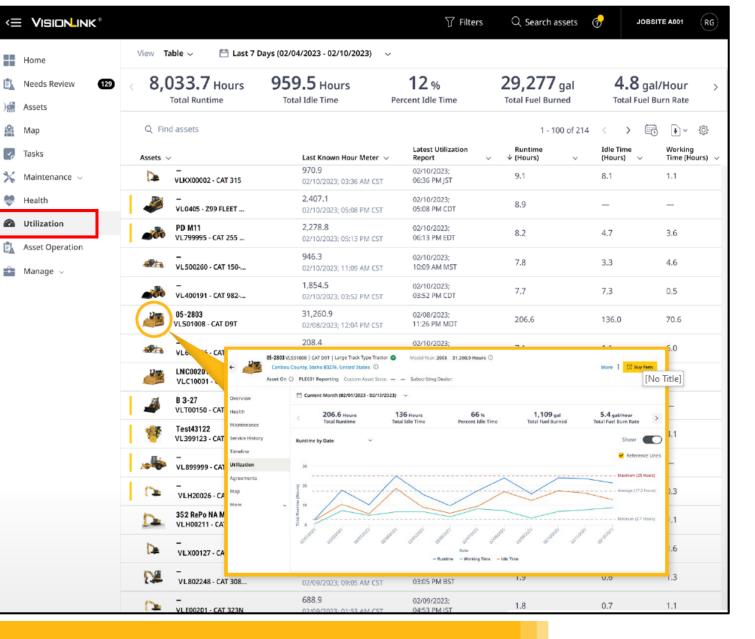




UTILIZATION DASHBOARD

Provides a high-level overview of idle time percentages, runtime hours, and other metrics related to machine performance. Data is visualized in chart and table formats to make identifying trends, outliers, and patterns easier to spot, making asset and fleet utilization optimizations easier:

- View fleet totals and individual assets
- Identify data trends
- Track fuel burn
- Estimate CO2 emissions*
- Detect high idle time
- Download or schedule email reports (CSV, XLSX, JSON, XML)
- And more (customizable)



CONSTRUCTION INDUSTRIES

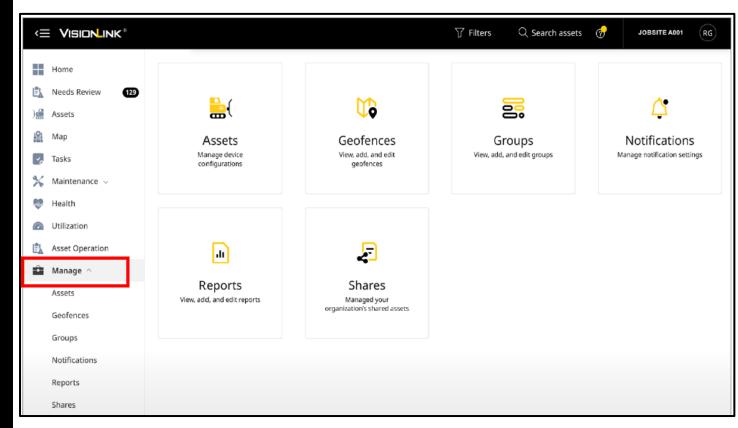
Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management



MANAGE DASHBOARD

VisionLink administrative tools are organized by categories within the Manage dashboard and can be modified based on a user's permission level. Category sub-pages include:

- **Assets** Manage the hour meter and odometer settings of each asset and set the end-of-day reporting parameters.
- **Geofences** Create custom map boundaries to track and report assets based on your business needs.
- **Groups** Organize your fleet in ways that make sense to your organization.
- **Notifications** Add, edit or remove notification alerts from a list of available system categories. Anything that meets your criteria will become a Needs Review item.
- **Reports** Schedule reports based on fault code, fleet fuel, fleet usage, or fluid analysis.
- **Shares** Configure and share temporary views of asset data with another organization while retaining ownership of the asset.
- **Users** Manage who can access VisionLink and how they can use VisionLink data.



CATERPILLAR

CONSTRUCTION INDUSTRIES



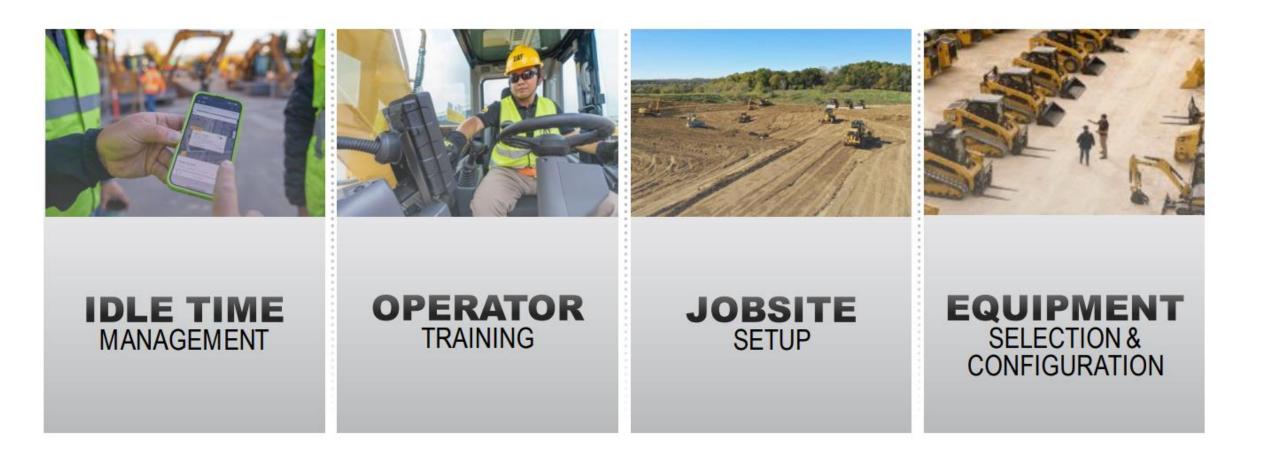
VISIONLINK DEMO:

- 1. Scan asset QR code
- 2. Asset management: location and maintenance
- 3. PM4 Perform
- 4. View Checklist & Parts
- 5. "Buy parts" required
- 6. Checkout



CONSTRUCTION INDUSTRIES

Techniques to Help Reduce Fuel Consumption & Emissions





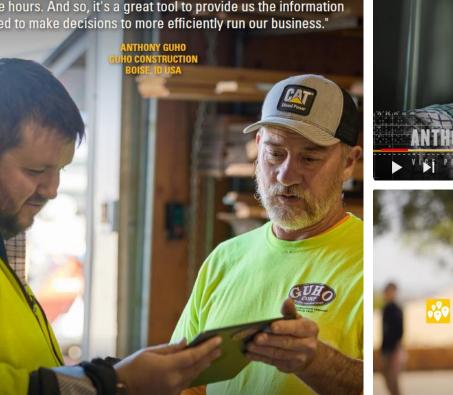
Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

Caterpillar: Confidential Green

CATERPILLAR[®]

Customer Testimonial

"The VisionLink platform is a great asset for the business and for the fleet and helps us better manage the fleet to minimize downtime, maximize efficiencies and utilization, minimize our fuel burn, watch our idle hours. And so, it's a great tool to provide us the information we need to make decisions to more efficiently run our business."







Guho Construction (US)



Maveric Contractors





CONSTRUCTION INDUSTRIES

Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

QUESTIONS?



Building Construction Products | China Operations | Earthmoving | Excavation | Global Construction & Infrastructure | SEM | Services | Supply Management

