



SOFTWARE

STREAMLINING

- Equipment Inspections
- Repair Requests
- Work Orders



Cutting costs and Keeping Equipment on the Job

Equipment inspections, repair requests and maintenance work orders are essential, every-day processes within heavy construction operations. Let's take a look at:

- How contractors typically complete these processes.
- How they could complete them more effectively with connected workflows and a unified software platform.

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Problems with Paper: *Data Quality and Inefficiency*

For inspections, contractors first need the paper form for a specific piece of equipment. Having the right, up-to-date version available is difficult. Foremen typically struggle to maintain a large library of forms in their trucks or office trailers.

Alternatively, they use a generic form or one they happen to have on hand that is closest to the correct one. In either case, the quality of the information suffers.

*That's not data,
that's a piece of paper.*

Completing paper forms is also labor intensive. Data is limited to written text and depends largely on the interpretation, effort or style of the employee filling out the form.



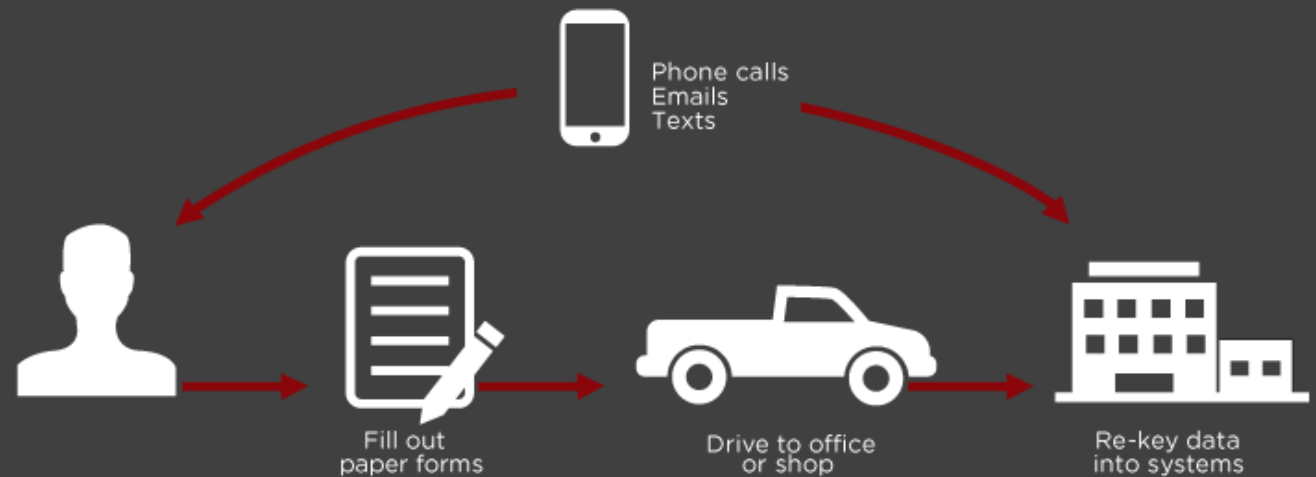
Problems with Paper: *Connectivity and Visibility*

Connectivity and visibility suffer, too, when inspections, repair requests and work orders are managed with paper and independent processes.

Paper forms have to get to a foreman or supervisor, a truck, an office and into a system. The trip can take days or even weeks.

Phone calls, texts or e-mails can save time, but they create a scrambled relay of partial information to multiple people in multiple formats and multiple steps. There is also no way to track the status of forms, requests or work orders and to provide visibility across the enterprise (to the dispatcher, for example) without time consuming, manual processes.

*Fragmented,
off-line
processes
create delays,
errors and
inefficiencies.*



**A Better
Approach:
*Unified Workflows
and Software***

A unified software platform can connect the field, the shop and the office. Each specialized software element pulls operational data – including the list of equipment – from a single, central database. Software elements also update that database in real time. Contractors get a single source of truth that is always up to date and visible enterprise wide.

A unified software platform with a central database allows real-time collaboration across workflows vital to equipment maintenance.

The following pages illustrate how this unified platform approach can minimize equipment downtime, cut costs and drive profitability.



Equipment Inspections: *Advantages of Going Paperless*

With a mobile-first data capture and analysis solution, custom electronic inspection forms can be created easily and quickly to capture the exact information required.

Forms can be pulled up on mobile devices, and filling out the electronic version is faster and easier. Drop down menus, mandatory fields and data binding increase the integrity and structure of the information.

Rich data like photos, GPS locations and time stamps increase the value of the forms. A photo of what needs to be repaired – for example – can enhance a written description and it can be transferred directly to the work order.


Form submission is also instantaneous. When there is a defect, the maintenance team knows about it sooner and can fix it faster.

| | |
|------------|-------------------------------|
| Name: | Mark Hooks |
| Timestamp: | 7/25/2017 12:11 PM (-04:0...) |
| Status: | Current |

| | |
|--------------|-----------------------|
| Name: | Broken Windshield.jpg |
| File Type: | Image/jpeg |
| Description: | |

Equipment Inspections: *Advantages of Going Paperless*

Daily Equipment Inspection

Date and Time of Inspection: 7/25/2017 12:10 PM 

Employee Performing Inspection: Mark Hooks [hooks1]

Equipment Inspected: 100-CE003 [JD 550 Excavator]

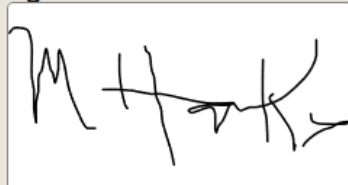
Areas Inspected

Equipment Exterior Fluid Levels Tires Tracks
 Brakes Steering Glass Operator Complaints
 Other (describe in comments)

Inspection Comments or Description of Issues


Brakes are making a lot of noise. Noted a broken side mirror on the drivers side.

Signature:



| | |
|------------|-------------------------------|
| Name: | Mark Hooks |
| Timestamp: | 7/25/2017 12:11 PM (-04:0...) |
| Status: | Current |

Attach Pictures Here



| | |
|--------------|-----------------------|
| Name: | Broken Windshield.jpg |
| File Type: | image/jpeg |
| Description: | |

- Drop-downs
- Data binding
- Mandatory fields
- Photos
- Attachments
- E-signatures
- Timestamps
- GPS Location
- Instant submission

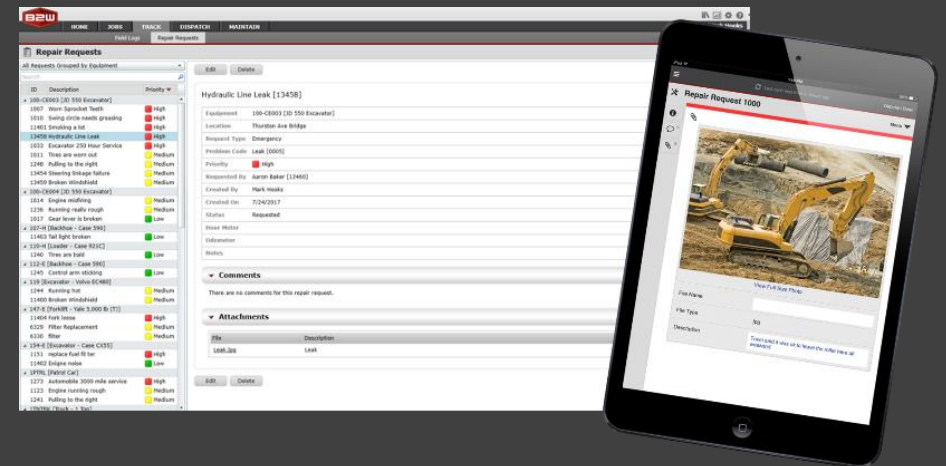
Electronic forms eliminate redundant, manual data entry. Structured data is available enterprise wide in real time.

Making Repair Requests: *Connecting the Field and the Shop*

Field employees can use a unified field tracking and analysis solution to document repair requests and communicate them directly to managers in the shop - and to the software being used to manage maintenance.

Comments, photos and any other information necessary to initiate the repair process and keep it going smoothly can be included.

The online process is seamless. Phone calls and paper forms disappear, along with errors and the need for time consuming person-to-person follow up. Authorized employees throughout the company can see the status of the repair request and the subsequent work order in real time.



B2W HOME JOBS TRACK DISPATCH MAINTAIN

Field Logs Repair Requests

Repair Requests

All Requests Grouped by Equipment

Search

| ID | Description | Priority |
|--------------------------------------|------------------------------|----------|
| 100-CE003 [JD 550 Excavator] | | |
| 1007 | Worn Sprocket Teeth | High |
| 1010 | Swing circle needs greasing | High |
| 11401 | Smoking a lot | High |
| 13458 | Hydraulic Line Leak | High |
| 1033 | Excavator 250 Hour Service | High |
| 1011 | Tires are worn out | Medium |
| 1248 | Pulling to the right | Medium |
| 13454 | Steering linkage failure | Medium |
| 13459 | Broken Windshield | Medium |
| 100-CE004 [JD 550 Excavator] | | |
| 1014 | Engine misfiring | Medium |
| 1236 | Running really rough | Medium |
| 1017 | Gear lever is broken | Low |
| 107-H [Backhoe - Case 590] | | |
| 11403 | Tail light broken | Low |
| 110-H [Loader - Case 921C] | | |
| 1240 | Tires are bald | Low |
| 112-E [Backhoe - Case 590] | | |
| 1245 | Control arm sticking | Low |
| 119 [Excavator - Volvo EC480] | | |
| 1244 | Running hot | Medium |
| 11400 | Broken Windshield | Medium |
| 147-E [Forklift - Yale 5,000 lb (T)] | | |
| 11404 | Fork loose | High |
| 6329 | Filter Replacement | Medium |
| 6330 | filter | Medium |
| 154-E [Excavator - Case CX55] | | |
| 1151 | replace fuel filter | High |
| 11402 | Engine noise | Low |
| 1PTRL [Patrol Car] | | |
| 1273 | Automobile 3000 mile service | High |
| 1123 | Engine running rough | Medium |
| 1241 | Pulling to the right | Medium |
| 1TNRK [Truck - 1 Ton] | | |

Hydraulic Line Leak [13458]

Equipment 100-CE003 [JD 550 Excavator]

Location Thurston Ave Bridge

Request Type Emergency

Problem Code Leak [0005]

Priority High

Requested By Aaron Baker [12460]

Created By Mark Hooks

Created On 7/24/2017

Status Requested

Hour Meter

Odometer

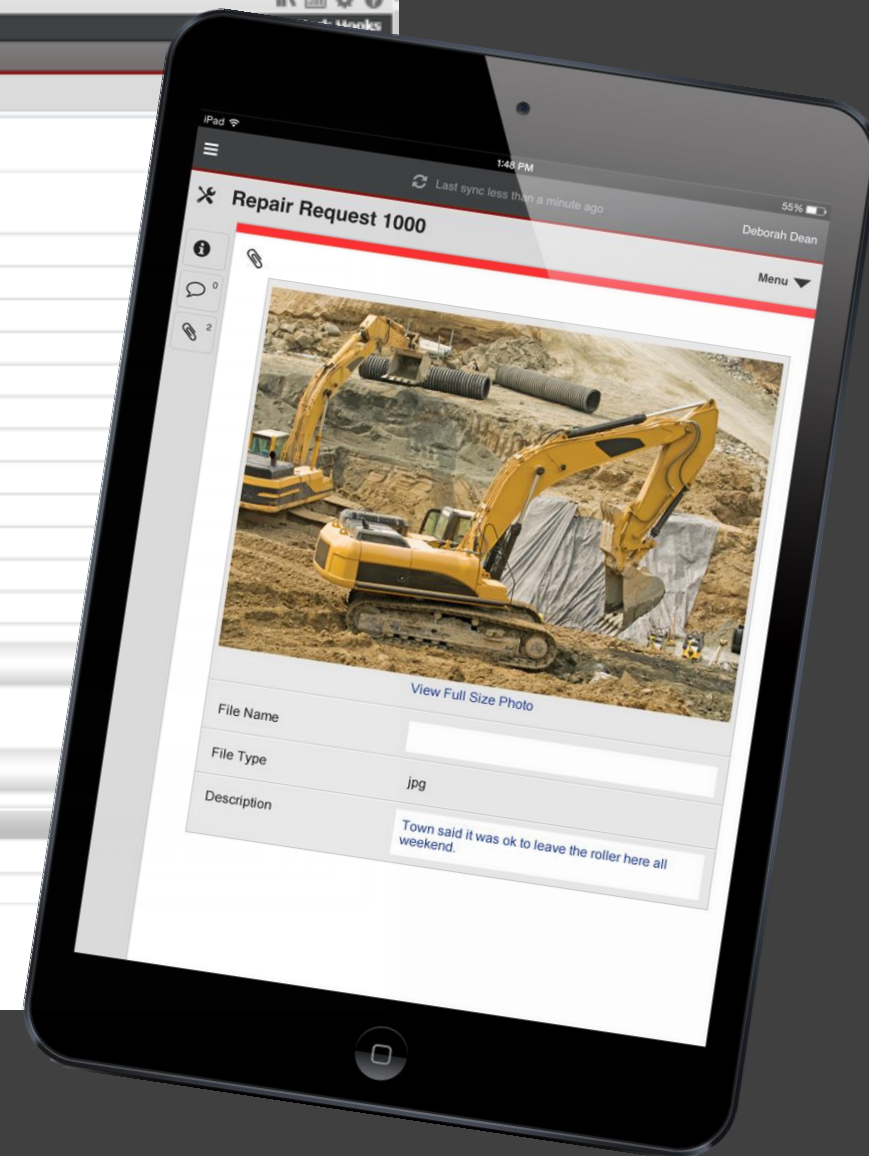
Notes

Comments

There are no comments for this repair request.

Attachments

| File | Description |
|----------|-------------|
| Leak.jpg | Leak |



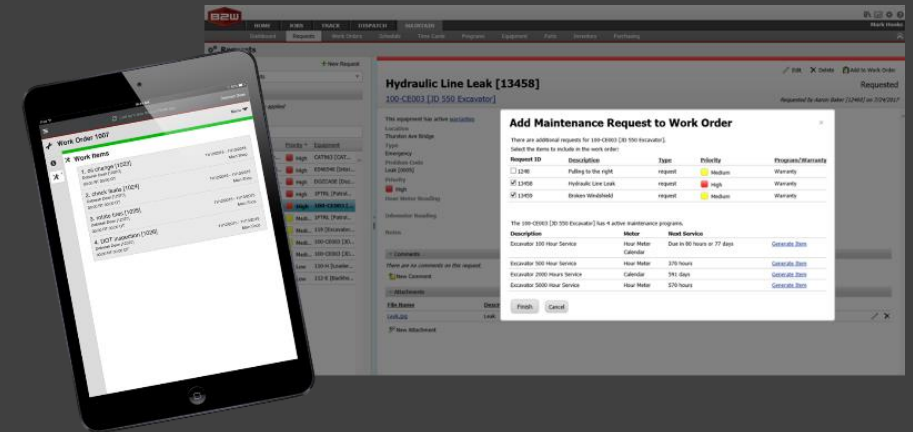
Creating Work Orders: More Intelligence, More Efficiency

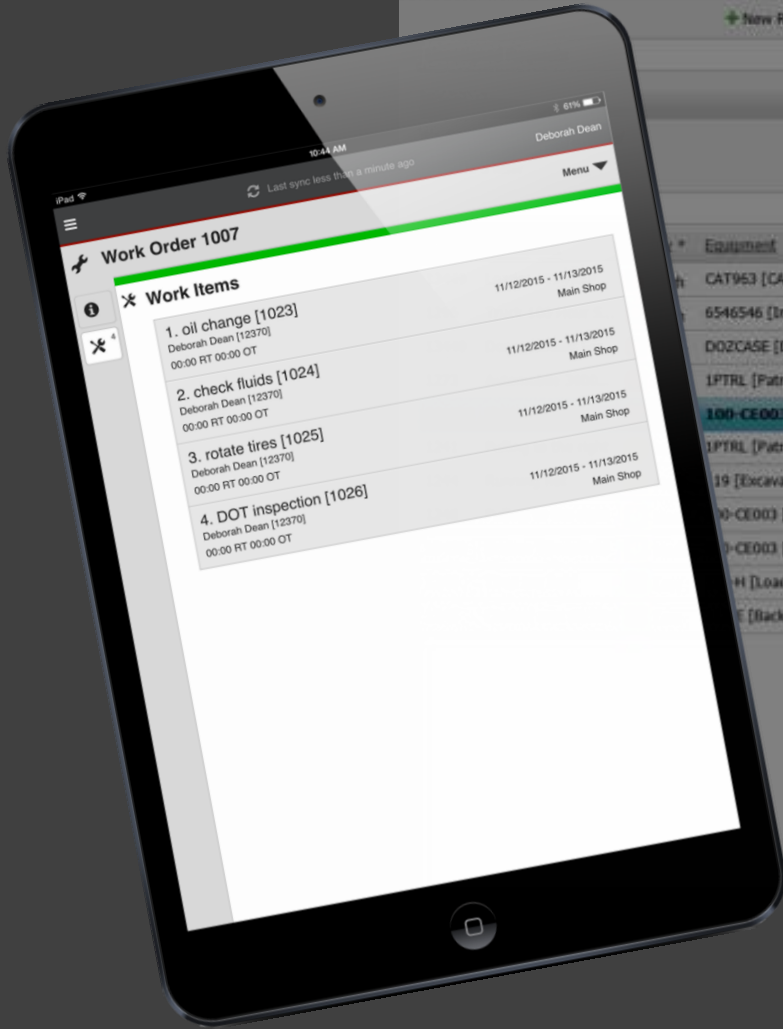
Once an inspection form or a repair request is submitted, the maintenance team can create a work order in the maintenance software.

Shop managers can see instantly and automatically if there are other repairs, work orders or upcoming preventive maintenance associated with the specific piece of equipment.

They can also see the requirements for other equipment on the same job site or in close proximity.

That valuable knowledge allows work to be bundled together to optimize the efficiency of mechanics and limit equipment downtime.





B2W HOME JOBS TRACK DISPATCH MAINTAIN Mark Hooks

Dashboard Requests Work Orders Schedule Time Cards Programs Equipment Parts Inventory Purchasing

Requests

[New Request](#)

Hydraulic Line Leak [13458]

[100-CE003 \[JD 550 Excavator\]](#) Requested by Aaron Baker [12460] on 7/24/2017

This equipment has active [warranties](#)

Location: Thurston Ave Bridge
 Type: Emergency
 Problem Code: Leak [0005]
 Priority: High
 Hour Meter Reading: [unreadable]
 Odometer Reading: [unreadable]

Notes: [unreadable]

Comments: There are no comments on this request. [New Comment](#)

Attachments: [New Attachment](#)

Add Maintenance Request to Work Order

There are additional requests for 100-CE003 [JD 550 Excavator].
 Select the items to include in the work order:

| Request ID | Description | Type | Priority | Program/Warranty |
|---|----------------------|---------|----------|------------------|
| <input type="checkbox"/> 1248 | Pulling to the right | request | Medium | Warranty |
| <input checked="" type="checkbox"/> 13458 | Hydraulic Line Leak | request | High | Warranty |
| <input checked="" type="checkbox"/> 13459 | Broken Windshield | request | Medium | Warranty |

The 100-CE003 [JD 550 Excavator] has 4 active maintenance programs.

| Description | Meter | Next Service | |
|------------------------------|------------------------|----------------------------|-------------------------------|
| Excavator 100 Hour Service | Hour Meter Calendar | Due in 80 hours or 77 days | Generate Item |
| Excavator 500 Hour Service | Hour Meter | 370 hours | Generate Item |
| Excavator 2000 Hours Service | Calendar | 591 days | Generate Item |
| Excavator 5000 Hour Service | Hour Meter | 570 hours | Generate Item |

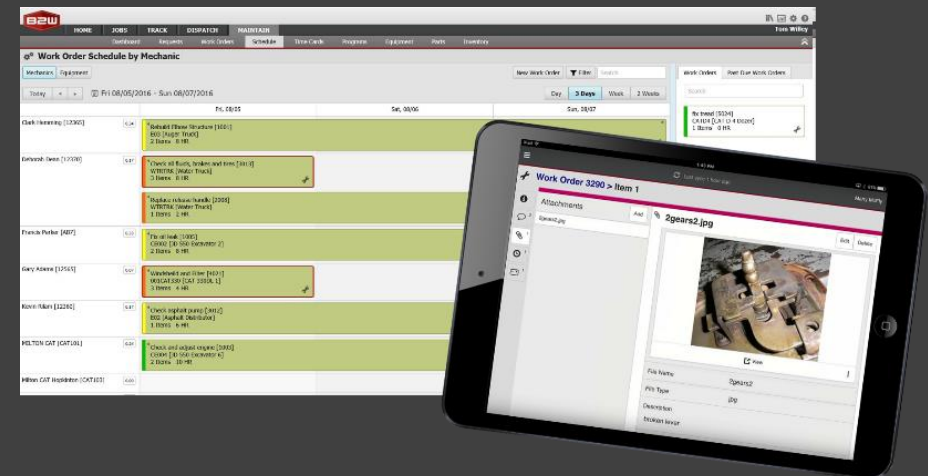
[Finish](#) [Cancel](#)

Completing Work Orders: *Empowering the Mobile Mechanic*

When a work order is assigned, the mechanic has all of the information needed to complete the repair. That includes access to repair history, documentation and warranty information.

Mobile technology completes the picture, turning mechanics into mobile mechanics.

With work orders and all of this valuable supporting data online and updated in real time, mechanics spend more time making repairs and less time driving back and forth to the shop. They can also communicate the status of the repair process in real time across the organization.



B2W Tom Willey

HOME JOBS TRACK DISPATCH MAINTAIN

Dashboard Requests Work Orders **Schedule** Time Cards Programs Equipment Parts Inventory

Work Order Schedule by Mechanic

Mechanics Equipment

New Work Order Filter Search

Work Orders Past Due Work Orders

Today ◀ ▶ **Fri 08/05/2016 - Sun 08/07/2016** Day **3 Days** Week 2 Weeks

| | Fri, 08/05 | Sat, 08/06 | Sun, 08/07 |
|---|--|------------|------------|
| Clark Hemming [12365] 0.34 | <ul style="list-style-type: none"> Rebuild Elbow Structure [1001] E03 [Auger Truck] 2 Items 8 HR | | |
| Deborah Dean [12370] 0.17 | <ul style="list-style-type: none"> Check all fluids, brakes and tires [3013] WTRTRK [Water Truck] 3 Items 8 HR Replace release handle [2008] WTRTRK [Water Truck] 1 Items 2 HR | | |
| Francis Parker [AB7] 0.33 | <ul style="list-style-type: none"> Fix oil leak [1005] CE002 [JD 550 Excavator 2] 2 Items 8 HR | | |
| Gary Adams [12565] 0.07 | <ul style="list-style-type: none"> Windshield and Filter [4021] 001CAT330 [CAT 330DL 1] 3 Items 4 HR | | |
| Kevin Rilam [12360] 0.17 | <ul style="list-style-type: none"> Check asphalt pump [3012] E02 [Asphalt Distributor] 1 Items 6 HR | | |
| MILTON CAT [CAT101] 0.24 | <ul style="list-style-type: none"> Check and adjust engine [1003] CE004 [JD 550 Excavator 6] 2 Items 10 HR | | |
| Milton CAT Hopkinton [CAT103] 0.00 | | | |

Search
 fix tread [5024]
 CATD4 [CAT D 4 Dozer]
 1 Items 0 HR


1:43 PM 81% Marty McFly

Work Order 3290 > Item 1 Last sync 1 hour ago

Attachments

2gears2.jpg Add

2gears2.jpg Edit Delete



View

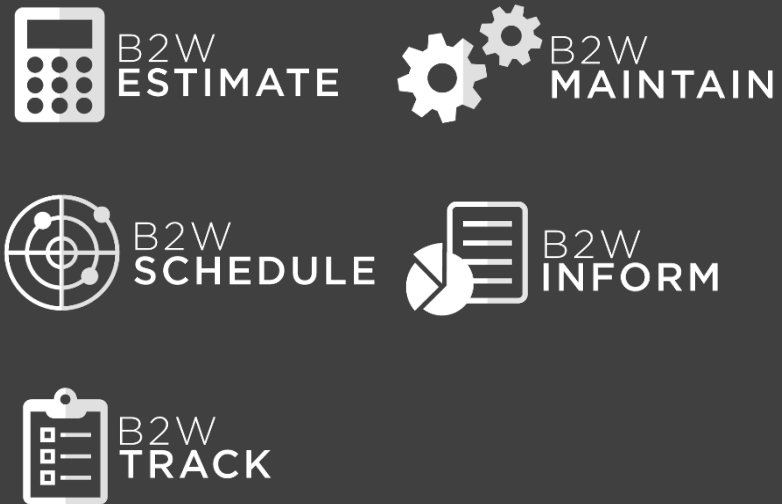
| | |
|-------------|--------------|
| File Name | 2gears2 |
| File Type | jpg |
| Description | broken lever |

Cutting costs and Keeping Equipment on the Job

Processes that keep equipment in production and operating safely can make or break heavy construction projects. Unfortunately, paper forms and disconnected systems are a recipe for delays, errors, uncertainty and re-work.

With a unified approach, contractors can gain efficiencies within individual workflows. They can also expand collaboration across multiple workflows to save time and money while improving outcomes.

*Click to learn more
about the unified
elements within the
ONE Platform*



Check out these videos to hear what B2W clients have to say about streamlining equipment related processes.



BARRIERE CONSTRUCTION
Paperless Inspections



W.L. FRENCH EXCAVATING
B2W Maintain