





Difficult to Find



Difficult to Understand



Difficult to Trust

# Products are getting very complex and global





**Poor Service  
Experience**



**Lower Customer  
Satisfaction & Retention**



**Lost Business  
Opportunity**

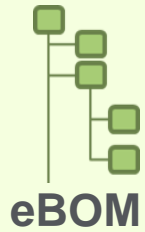


## Dynamic, In-Context, Trustworthy Service and Parts Information

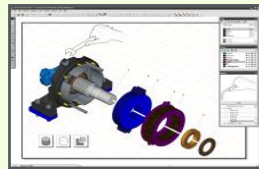
- **CREATE** structured and illustrated content for improved reuse and localization
- **MANAGE** configuration-specific, product-smart content and integrated change management
- **DELIVER** In-context, graphical service and parts information across the service ecosystem in a single environment

# Today - "End-to-End" Technical and Service Parts Information

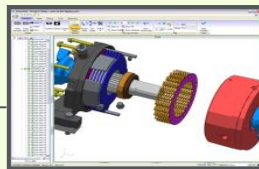
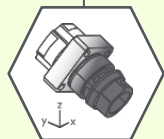
## CREATE



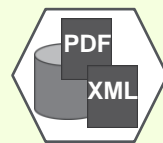
PTC® Arbortext® IsoDraw



PTC® Creo® Illustrate



PTC® Arbortext® Editor/Styler



## MANAGE

PTC® Windchill® Service Parts

Part No.	Description	Material	Qty	Unit	Subst.	Alt.	Rev.
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1
10000000000000000000	10000000000000000000	10000000000000000000	1	1	1	1	1

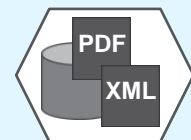
sBOM's and Parts Catalogs

PTC® Windchill® Service Information Manager



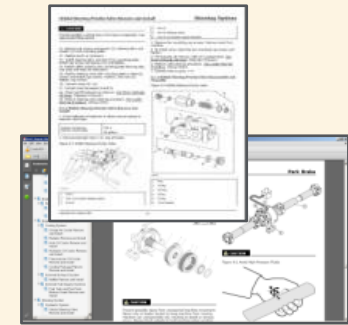
- Make/Model/SN range
- System/sub-system
- Options and variants
- Information type
- Language variants

Context-Based Content Management

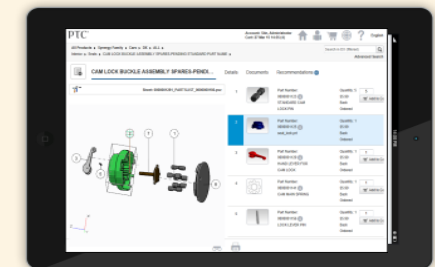


## DELIVER

PTC® Arbortext® Publishing Engine



PTC® Servigistics® InService



Arbortext Editor - Piston and Connecting Rod - Assembly Procedure\_hp

File Edit Find View Insert Object Table Tools Styler Format Window Help

**procedure**

- title Piston and Connecting Rod -
- shortdesc Assembly Procedure
- prolog
  - metadata
    - othermeta
    - metadata
  - prolog
- procbody
  - table
    - title Table 1.
    - tgroup Required To
      - table
  - note Note
    - p When removed from the e
  - note
    - p Keep all parts clean from c
  - fig
    - title Figure 1.
    - image - x-wc://file=0000000
  - procsteps
    - procstep 1.
      - p Use Tool D with proper
      - fig
        - title Figure 2.
        - image - x-wc://file=00
    - procstep 2.
      - p Install the piston rings (
        - ol
          - li 1.
            - p Insert the sprit

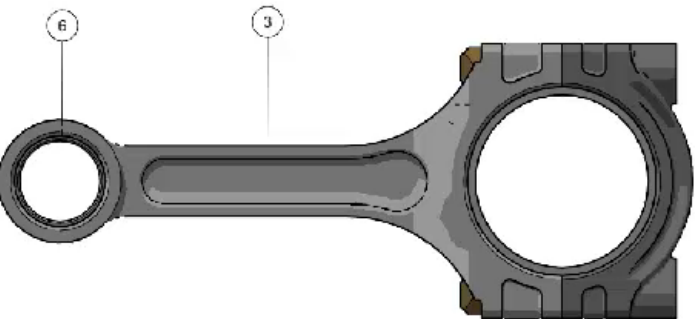
A	PL-48973	Retaining Ring Pliers	1
B	PP-78953	Pin Installation & Removal Tool	1
C	RE-49872	Piston Ring Expander	1
D	-	Hydraulic Press (for Bearings)	1

**Note**

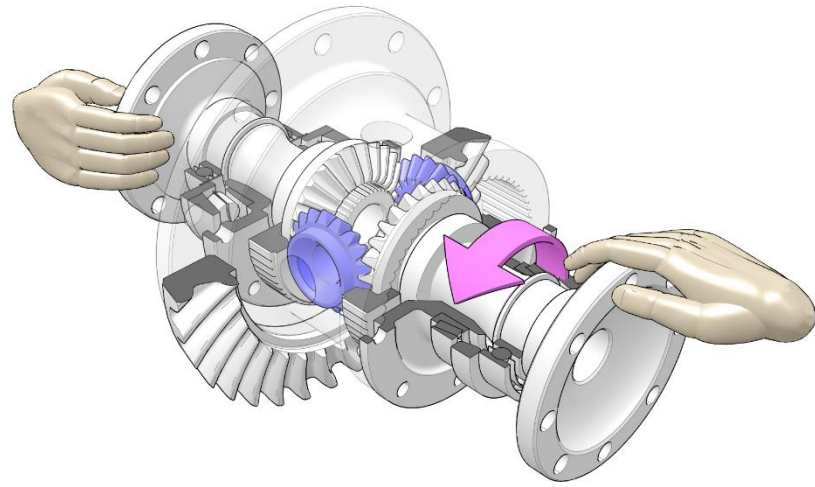
When removed from the engine, all pistons, connecting rods and engine cylinder numbers were given matching marks. The disassembled pistons and connecting rods must be matched during assembly and installed in the same engine cylinder number. Do not interchange the parts or cylinder locations.

Keep all parts clean from contaminants. Contaminants may cause increased wear and shortened component life

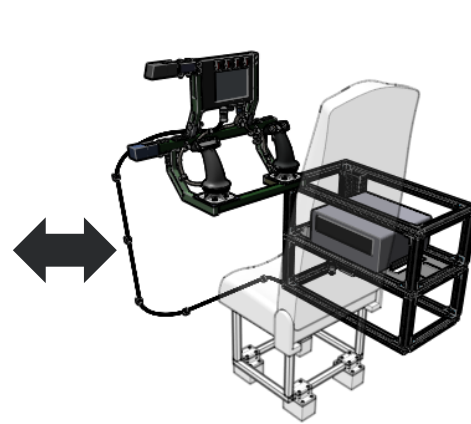
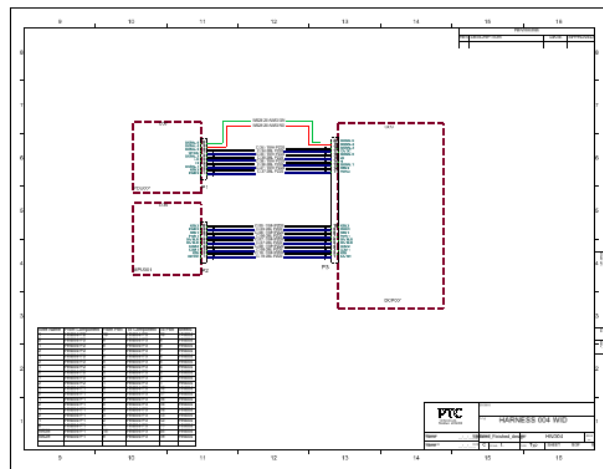
**Figure 1.** title



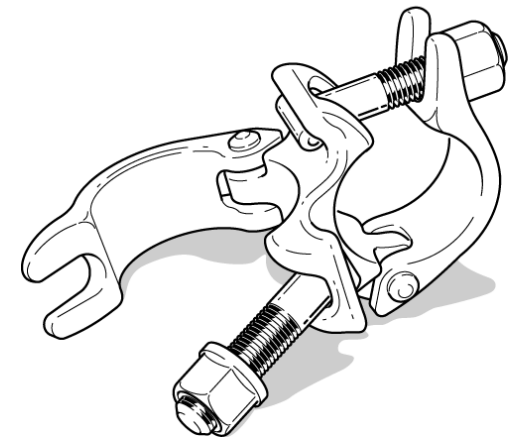
1. Use Tool D with proper size bearing installation adapter to remove the old connecting rod bearing and install a new



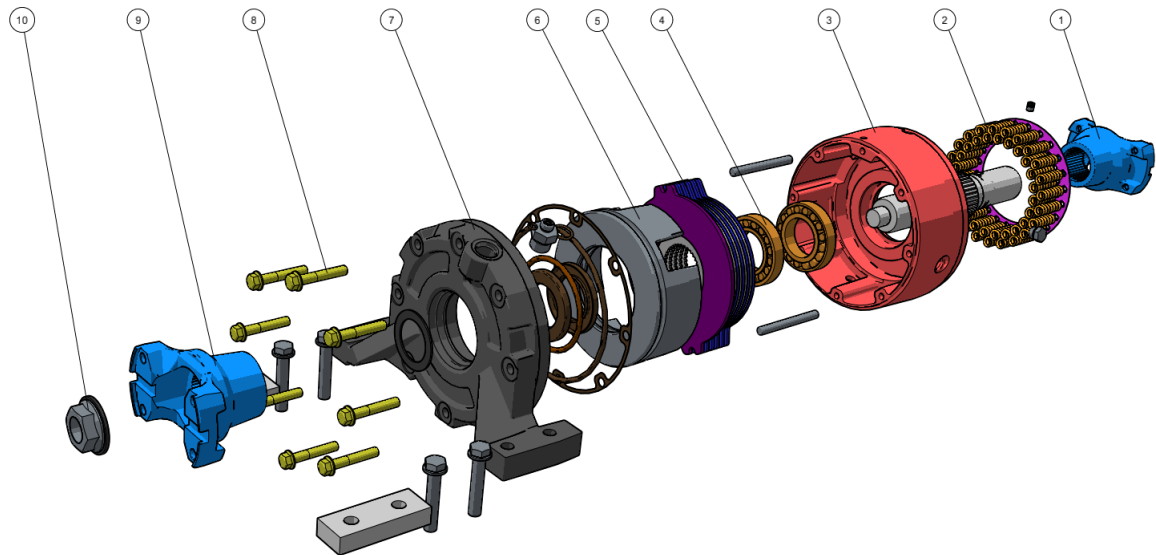
**Cut-away Illustration**



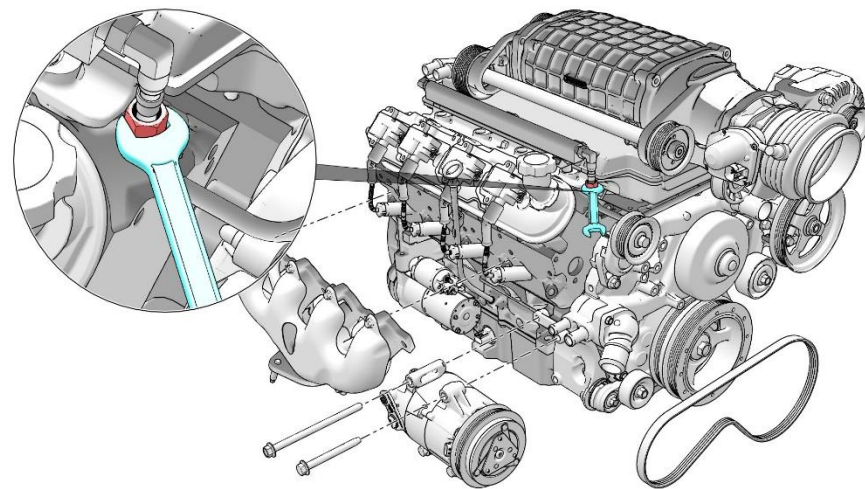
**3D and 2D Schematics Illustration**



**2D Vector Illustration**



**Callout Illustration**

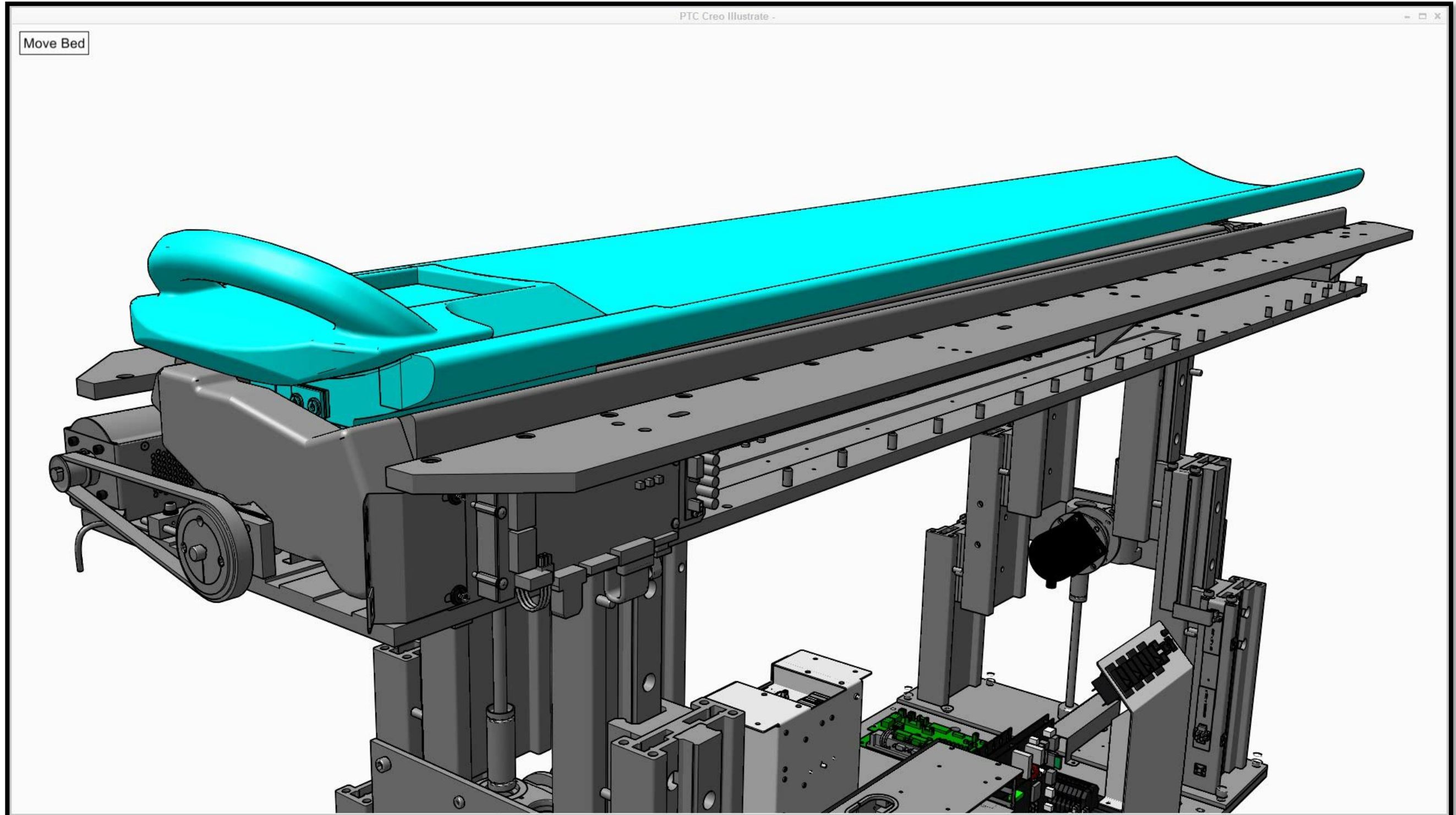


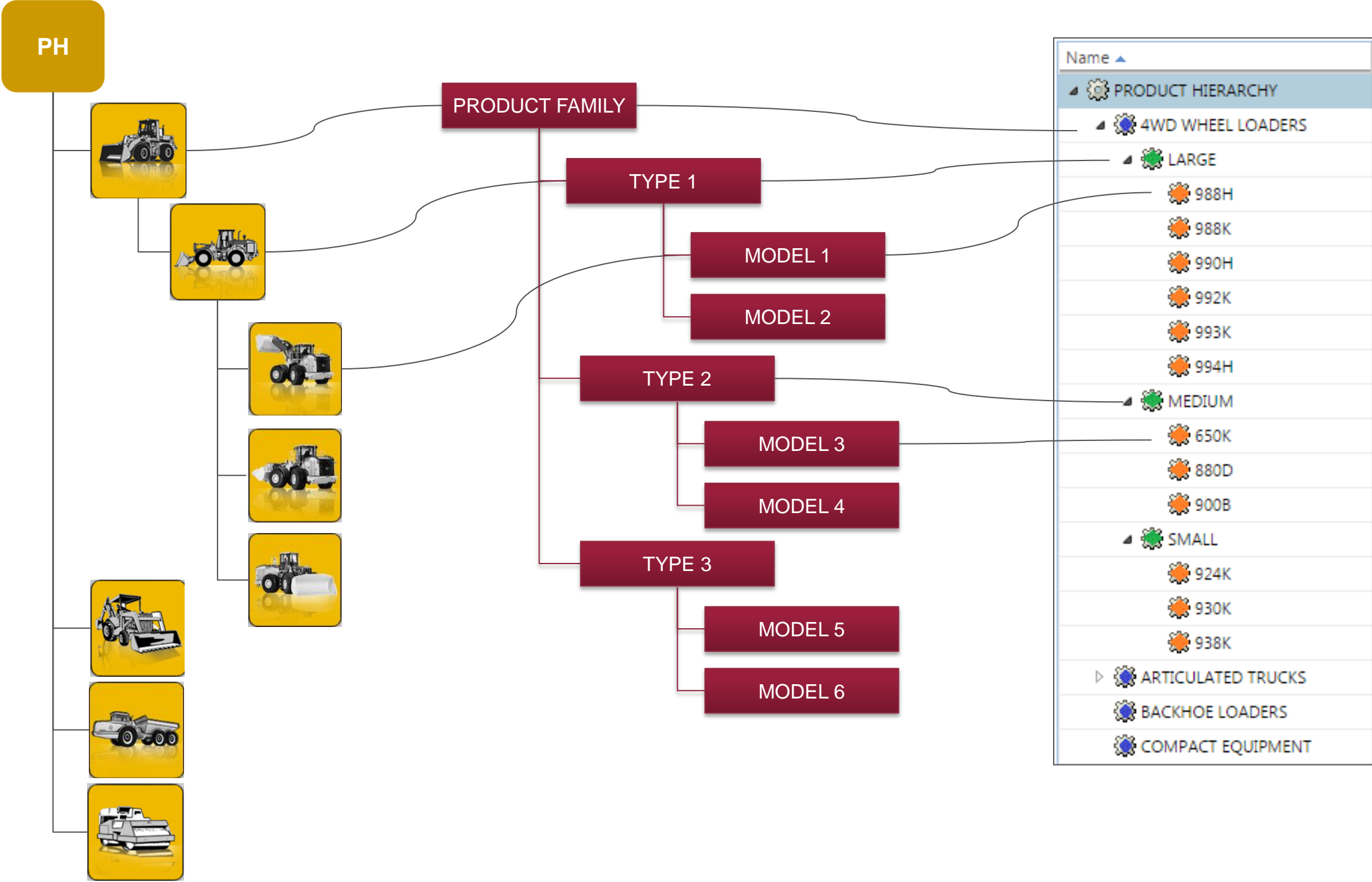
**Inset Illustration**



**Locator Illustration**







# MANAGE – Single Source of Service Information

PTC® Windchill®  
demo

All Types Search ... Quick Links

Products > 4WD Wheel Loader, Demo Organization > Folders > Information Structure

Recently Accessed

Information Structure - **I0000000093, 4WD WHEEL LOADER, Demo Organization, A.10 (Service)** Released

Details Structure Changes

Editing: Insert Existing, Remove, Insert New, Edit  
Check Out/In: Check Out, Undo Checkout, Check In, Checkouts  
Clipboard: Paste, Copy  
Viewing: Views, Display  
Save As/Add To: Save As, Add to  
Filter: Edit Filter, Current Filter, Saved Filters  
Publish: Representation  
Tools: Open In  
Reports: Reports

Find in Structure

Name


- 4WD WHEEL LOADER
- ATTACHMENTS
- AXLE AND SUSPENSION SYSTEM
- ELECTRICAL SYSTEMS
- ENGINE
- ENGINE AUXILLARY SYSTEMS
- FRAME AND BODY
- FRAME AND BODY 2
- GLOBAL VEHICLE COMMUNICATION
- HYDRAULIC SYSTEM
- LOADER
- MACHINE ARRANGEMENT
- OPERATOR STATION
- PARK BRAKING SYSTEM
- POWER TRAIN

( 22 objects )

Attributes Information Element List

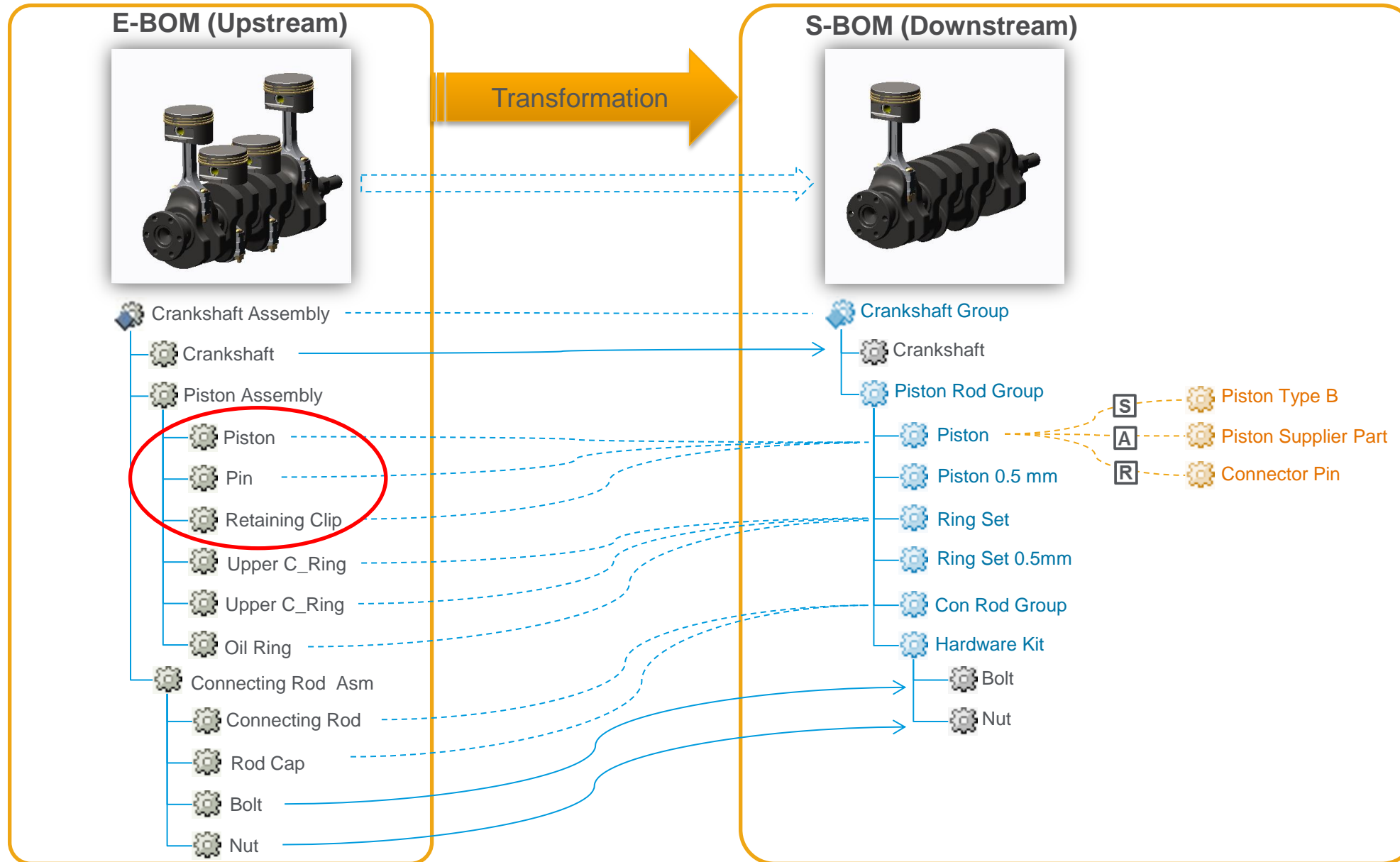
Information Structure Attributes

Representation:



Name: 4WD WHEEL LOADER  
Number: I0000000093  
Version: A.10 (Service)  
State: In Work - Released - Canceled  
Status: Checked in  
Modified By: Demo, User

Navigator



Define serviceable part breakdown

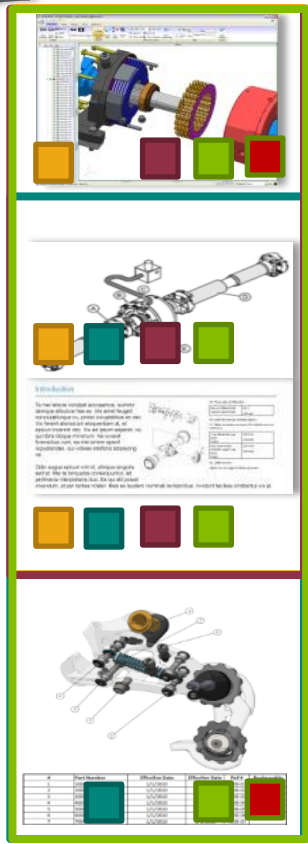
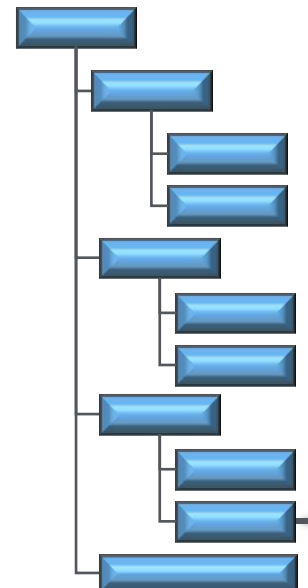
Identify serviceable parts

Add aftermarket parts

Define serviceable units & kits

Add Part Chains

Loader



Options

4 Wheel Drive

2 Wheel Drive

Conditions

Warm Climate

Cold Climate

Effectivity

Serial Number

## Options

Assign Basic Expression

Option Set - Bicycle2 Option Set Template, A.1

Design Option | Sales Option

All Options (10 objects)

Name	Choices	Group
Brake Type		Group 3
Frame Type		Group 1
Has Seat Cover		Group 2
Locale		Group 3
Seat Cover Type		Group 2
Seat Shell Type		Group 2
Steering Type		Group 2
Suspension		Group 3

00050, Brake Type

- D0015, (Rim)
- D0016, (Drum)
- D0017, (Disk)
- D0018, (Coaster)
- D0019, (Spoon)

OK Cancel

## Effectivity

Add Service Effectivity

\* Type: Serial Number

\* Context: 0000001285 Coupe

Serial Number

Range  Single value

Open start  Open end

From: [ ] To: [ ]

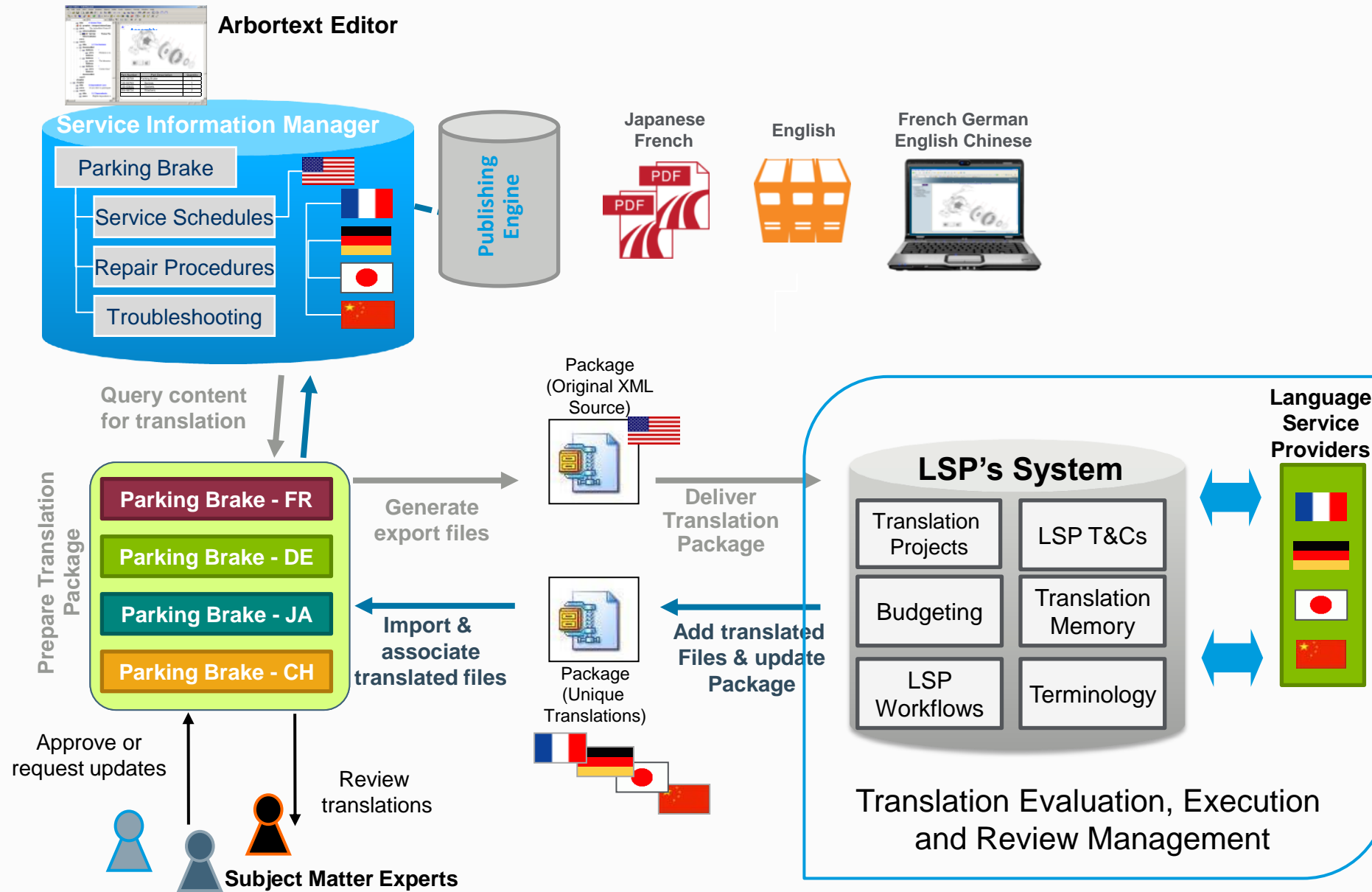
Assignment:  All  Usage: 0000001205, Synergy

Summary

Effectivity Type = Serial Number; Context = 0000001285, Coupe; Value = All;

\*Indicates required field

OK Apply Cancel





Account: Site, Administrator  
Cart: 27 May 15 02:28 (33)

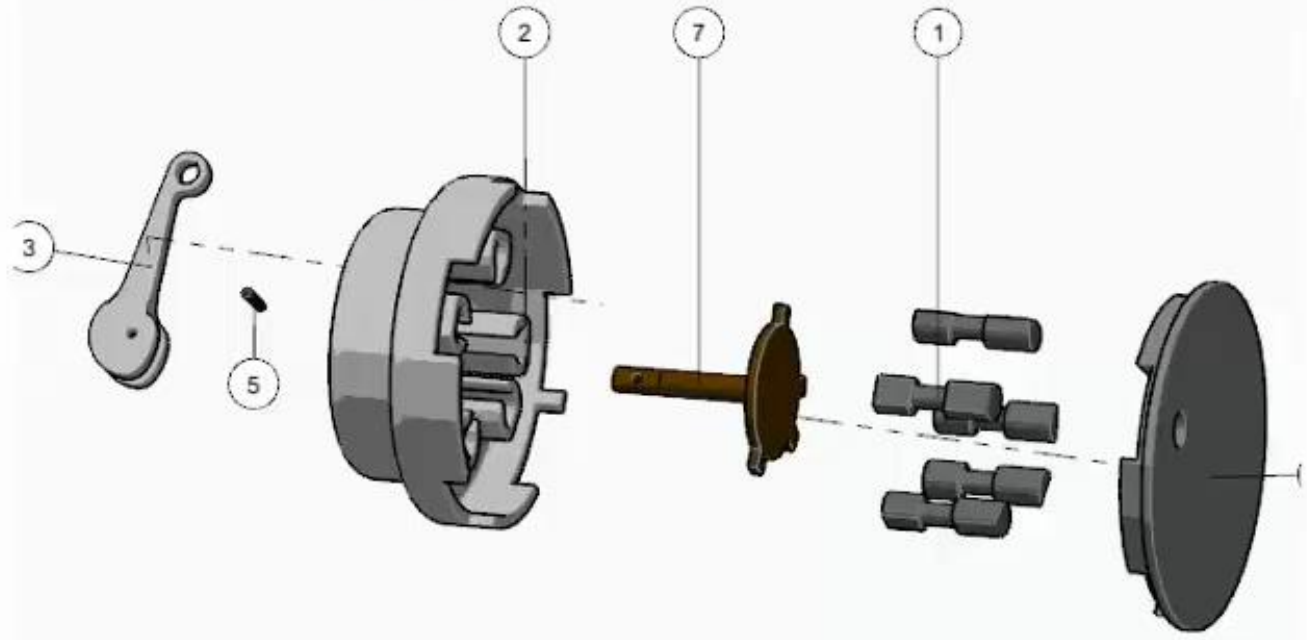


All Products ▶ Synergy Family ▶ Cars ▶ Coupe ▶ ALL ▶  
Interior ▶ Seats ▶ 0000001241-CAM LOCK BUCKLE ASSEMBLY SPARES KIT ▶

Search in Coupe   
Advanced Search

**0000001241-CAM LOCK BUCKLE ASSEMBLY SPARES KIT** Details Documents Recommendations **4**

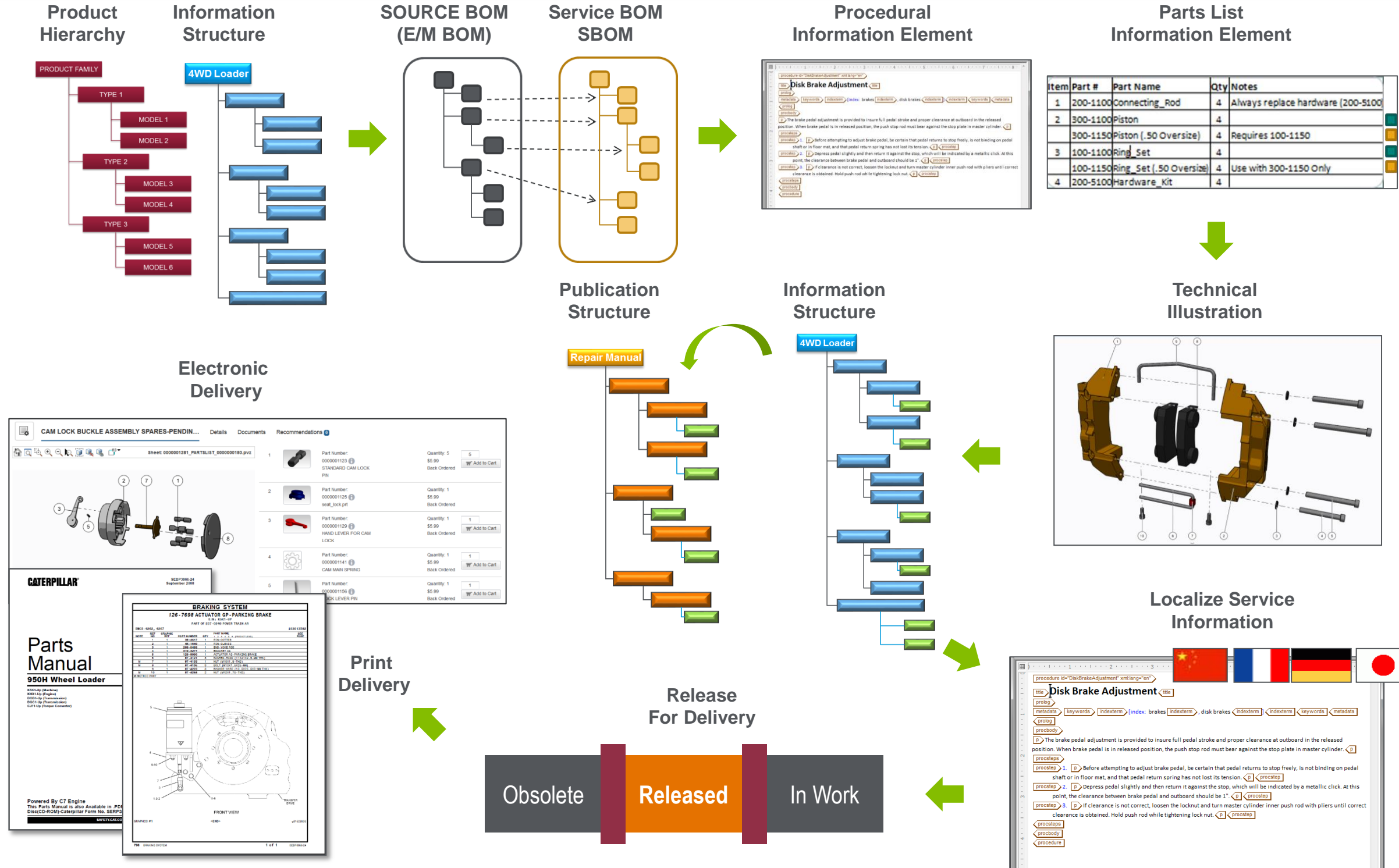
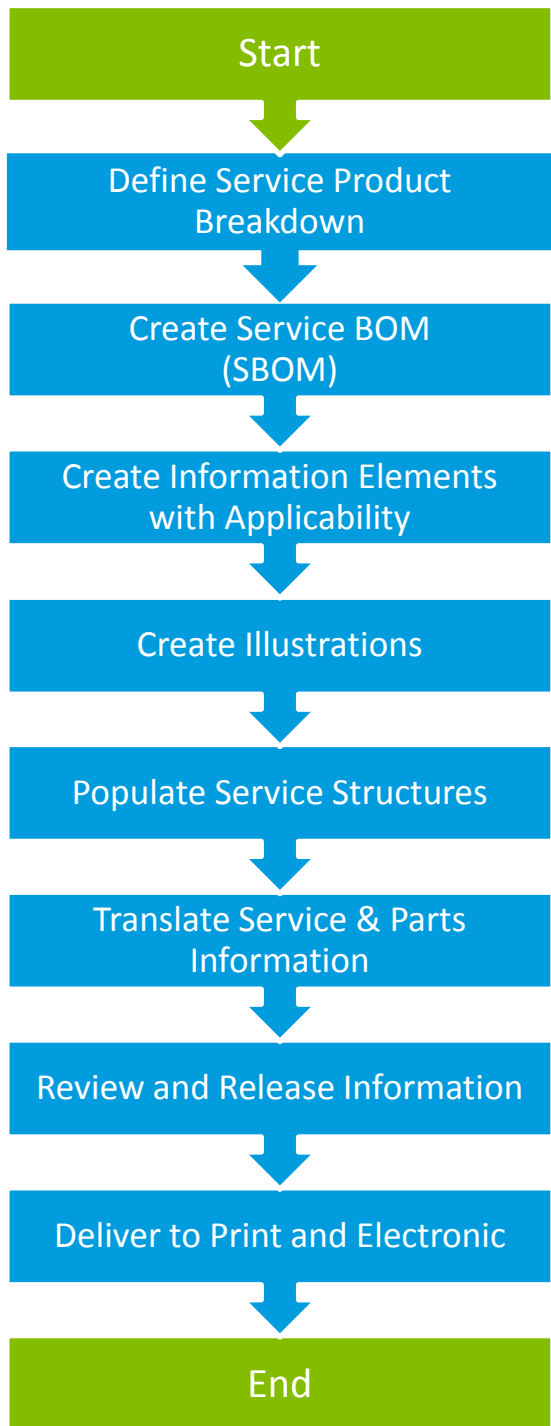
Sheet: CAM LOCK BUCKLE ILLUSTRATION



1		Part Number: 0000001123 STANDARD CAM LOCK PIN	Quantity: 5 \$5.99 Back Ordered
			<input type="text" value="5"/> <input type="button" value="Add to Cart"/>
2		Part Number: 0000001125 SEAT LOCK Remarks: Must order assembly Alternates	Quantity: 1 \$5.99 Back Ordered
3		Part Number: 0000001129 HAND LEVER FOR CAM LOCK Superseded	Quantity: 1 \$5.99 Back Ordered
			<input type="text" value="1"/> <input type="button" value="Add to Cart"/> Added to shopping cart
5		Part Number: 0000001156 LOCK LEVER PIN	Quantity: 1 \$5.99 Back Ordered
			<input type="text" value="1"/> <input type="button" value="Add to Cart"/>
7		Part Number: 0000001160 LOCK PIN LIFTING CAM	Quantity: 1 \$5.99 Back Ordered
			<input type="text" value="1"/> <input type="button" value="Add to Cart"/>
8		Part Number: 0000001175 LOWER SECTION LOCK Remarks: Must order assembly	Quantity: 1 \$5.99 Back Ordered



# Technical and Service Parts Information – Best Practice Process



Item	Part #	Part Name	Qty	Notes
1	200-1100	Connecting_Rod	4	Always replace hardware (200-5100)
2	300-1100	Piston	4	
3	300-1150	Piston [.50 Oversize]	4	Requires 100-1150
3	100-1100	Ring_Set	4	
	100-1150	Ring_Set [.50 Oversize]	4	Use with 300-1150 Only
4	200-5100	Hardware_Kit	4	

Part Number	Description	Quantity	Price
0000001120	STANDARD CAM LOCK PIN	5	\$5.99
0000001125	seal_lock_prt	1	\$5.99
0000001129	HAND LEVER FOR CAM LOCK	1	\$5.99
0000001141	CAM MAIN SPRING	1	\$5.99
0000001156	LOCK LEVER PIN	1	\$5.99

QTY	DESCRIPTION	UNIT	PRICE
1	126-7698 ACTUATOR GP-PARKING BRAKE		
2	126-7698 ACTUATOR GP-PARKING BRAKE		
3	126-7698 ACTUATOR GP-PARKING BRAKE		
4	126-7698 ACTUATOR GP-PARKING BRAKE		
5	126-7698 ACTUATOR GP-PARKING BRAKE		

Localized procedure for 'Disk Brake Adjustment' with flags for China, France, Germany, and Japan. The procedure text includes steps for adjusting the brake pedal and ensuring proper clearance.





In the context of Connected Products and Digital Twin



- **Content:** efficient and effective for performing the needed service
- **Context:** filters the information to exactly what the user needs
- **Connection:** access to the product or related business systems to perform service

PTC's Technical and Service Parts Information Solution allows companies to create, manage and deliver real-time product data, coordinated from Engineering through Service in a configuration specific and graphical format to entire service network



**↑ 12%-15% technician productivity improvement**

**↑ 20% Author productivity improvement**

**↑ Improved Service Parts Revenue and Profitability**

**↑ 43% Improved customer satisfaction and retention**

# Thank You

- Your feedback is valuable
- Don't miss out on the chance to provide your feedback
- Gain a chance to win an instant prize!
- Complete your session evaluation now

# PTC<sup>®</sup> Live Global