

# Perspectives from a Chief Engineer: Caterpillar's Next Generation Hydraulic Excavator

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Caterpillar, Inc.



Designing the Future Summit 2019

lppd  Lean Product &  
Process Development

*Life is an adventure  
best traveled together*



*3 Children  
4 Pets  
3 States  
2 Countries  
10 Addresses  
9,132 Days*

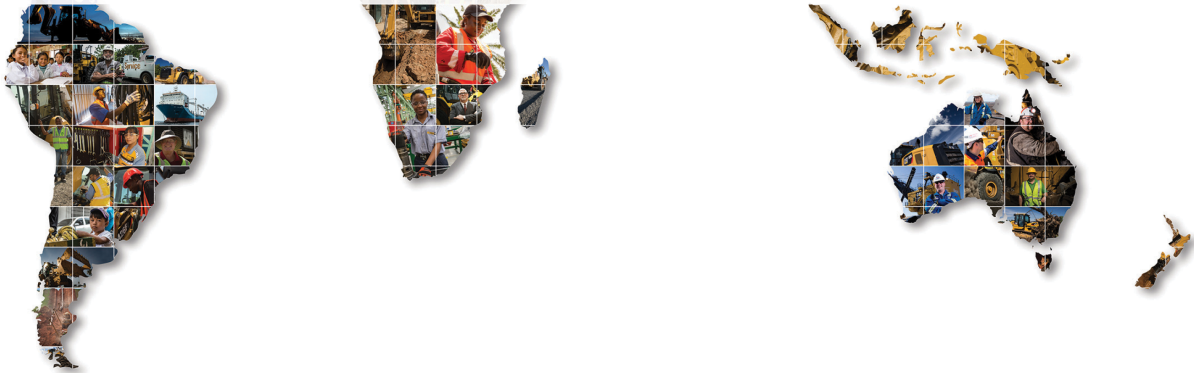
*Steven & Pamela*

*25 years of adventure & counting...*

*Est. December 17, 1993*



**OUR SOLUTIONS HELP OUR CUSTOMERS BUILD A BETTER WORLD.**



# The Excavator Market

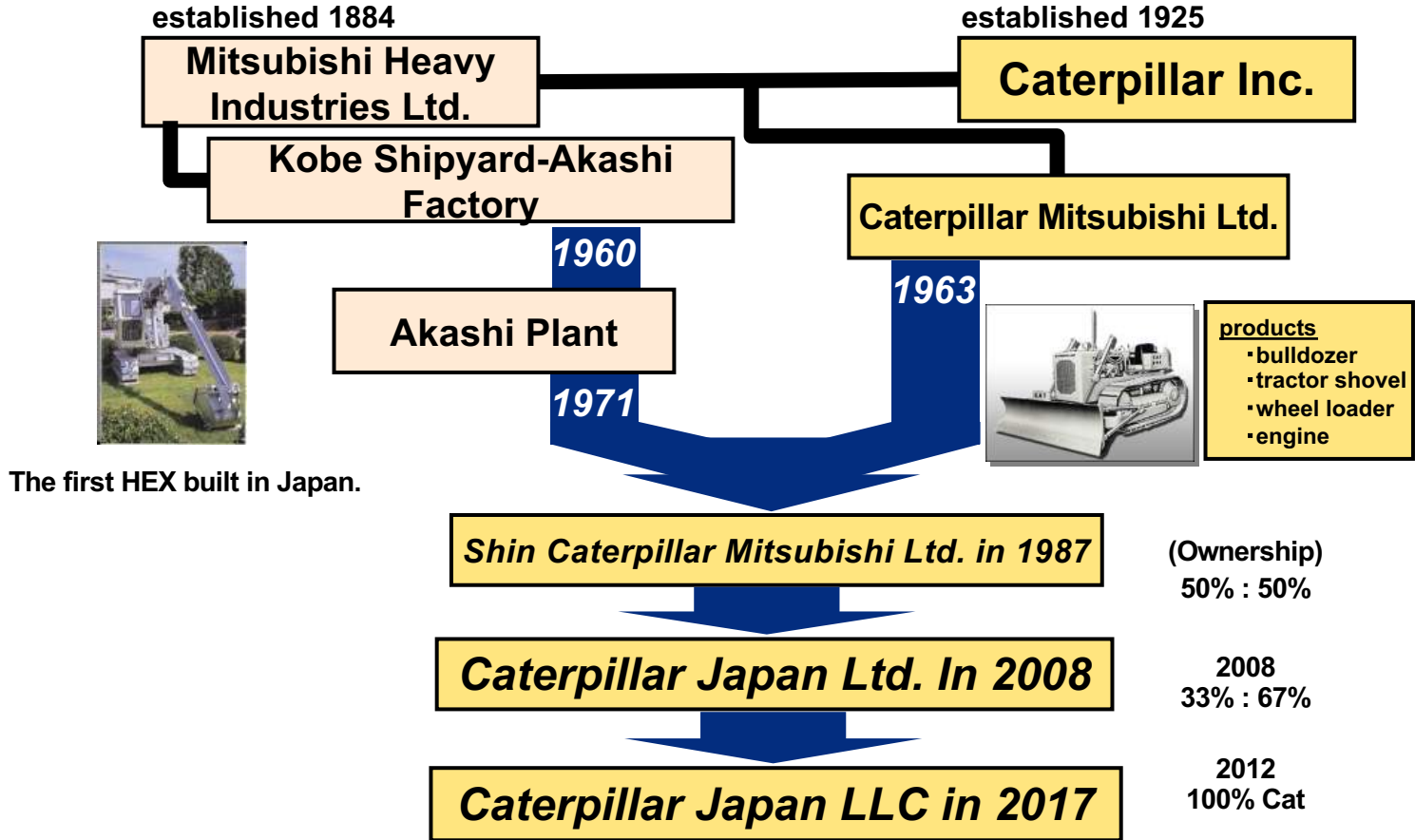
Highly Competitive

Broad Application

Global



# Caterpillar in Japan



# Learning from Caterpillar Japan

People

Deep Expertise

Factory Focus

Suppliers

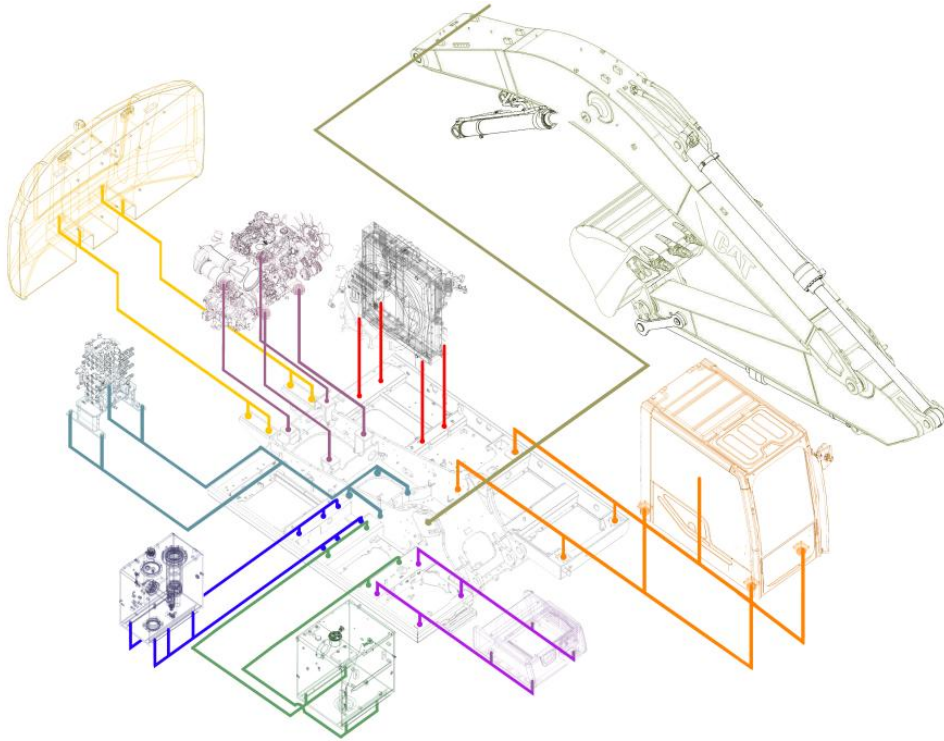


# Evolution to Next Gen Excavator



# Product Strategy

Platform Interface



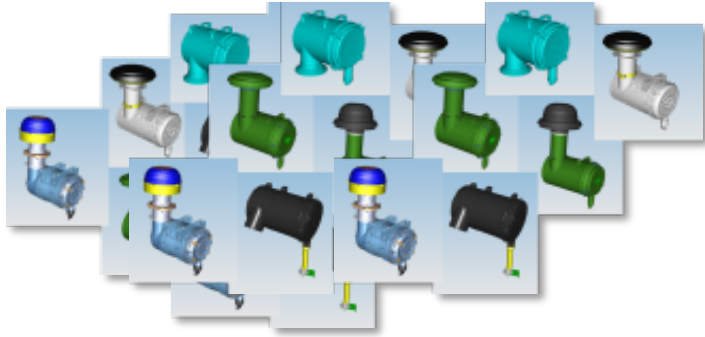
Employ a Modular Global Platform

Serve the Broad Spectrum of Customer Applications

Democratize Technology



# Simplification & Modularity



	Part Numbers (Current)	Part Numbers (Next Gen)
HYD Return Filter	3	2
Air Filter	15	4
CAB	16	3
HYD TANK	26	10

**15** → **4**  
Air Filters



**16** → **3**  
Cabs



THE NEXT GENERATION OF EXCAVATORS

# DIFFERENT BY DESIGN

- ✓ STUDY YOUR SITE
- ✓ SET YOUR GOALS
- ✓ CHOOSE YOUR MACHINE

320

**MORE OF WHAT YOU WANT**  
20 TON EFFICIENCY AND SAFETY REDEFINED

320 GC  
**ALL YOU NEED**  
RELIABLE, LOWEST COST  
PER HOUR EXCAVATOR



323  
**THE EDGE YOU'RE  
LOOKING FOR**  
MORE PRODUCTIVITY,  
MORE POWER

## MAKE MORE MONEY.

CAT® EXCAVATORS BUILT FOR DIFFERENT APPLICATIONS, ECONOMIC PROFILES AND MACHINE UTILIZATION.

UP TO **15%** LOWER  
Maintenance Cost

UP TO **25%** LESS  
Fuel Consumption

UP TO **45% MORE EFFICIENCY**

WITH CAT CONNECT TECHNOLOGY | 320 & 323

# Learning from my time as Chief Engineer

People are an Appreciating Asset.

Operations is the Customer of Engineering

Suppliers are an Extension of the Business

Organizational Confidence starts with the Chief Engineer

Tenacity is a Virtue





...THANK YOU