

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
9132 Days*

Steven & Pamela

25 years of adventure & counting...

Est. December 17, 1993



OUR SOLUTIONS HELP OUR CUSTOMERS BUILD A BETTER WORLD.



The Excavator Market

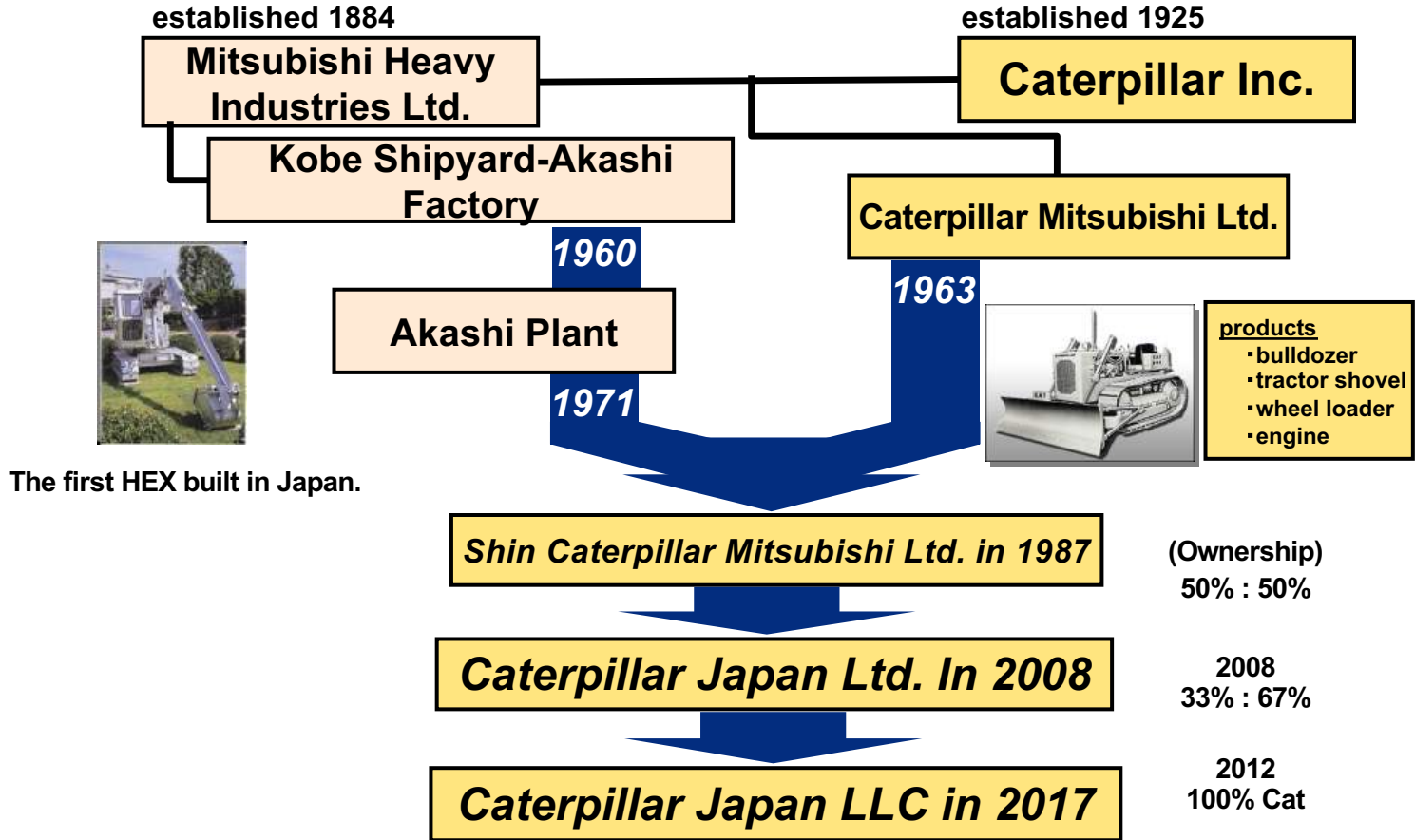
Highly Competitive

Broad Application

Global



Caterpillar in Japan



Learning from Caterpillar Japan

People

Deep Expertise

Factory Focus

Suppliers

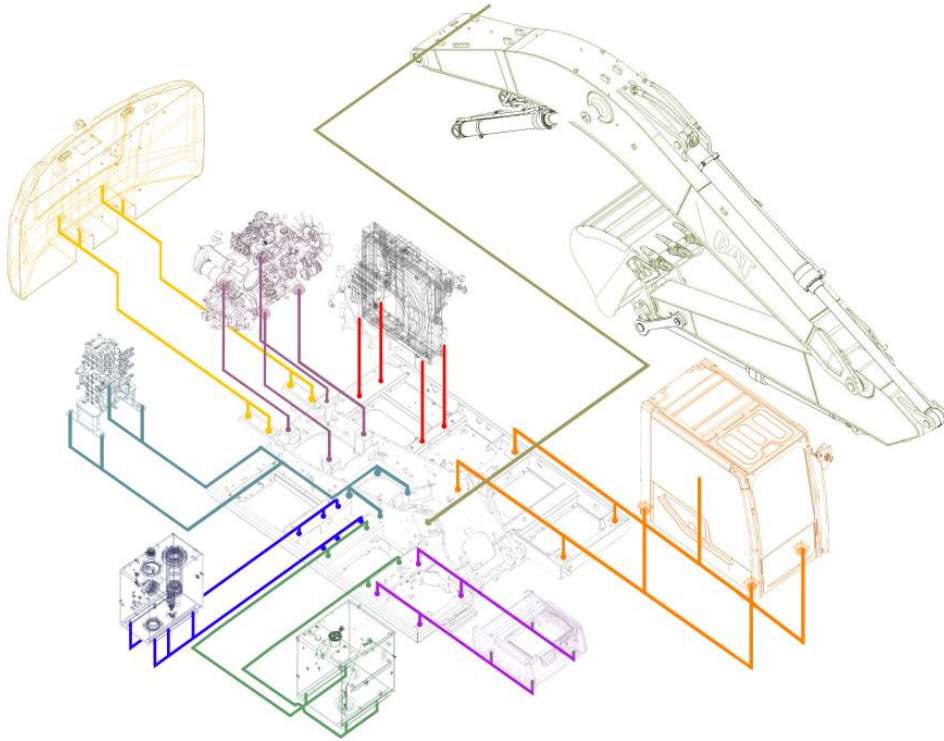


Evolution to Next Gen Excavator



Product Strategy

Platform Interface

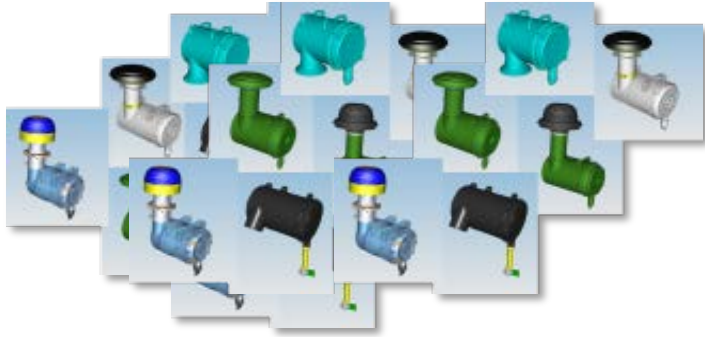


Employ a Modular Global Platform

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