





REACHING NEW HEIGHTS

D Series Excavator Introduction

Presented by: Curt Unger

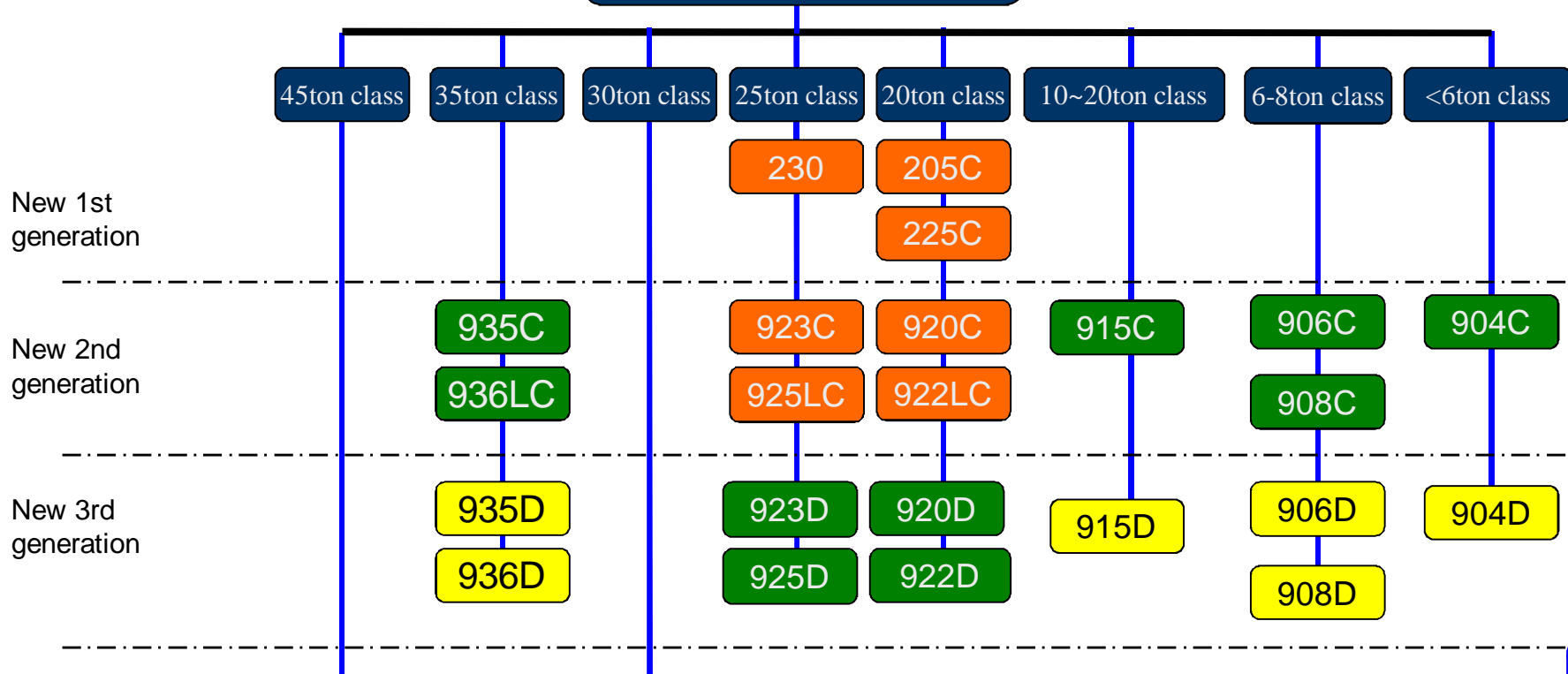
**Overseas Sales & Marketing Division
November 2010 Shanghai**

Table of contents

REACHING NEW HEIGHTS

- **Introduce & Define the Main Features of our new D – Series Excavators**
- **Benefits & Highlights**
- **Review Launching plan for Overseas markets**

LiuGong excavator



New intelligent D series excavator:

- ⊔ Superior in dirt work; reliable, efficient, dependable
- ⊔ With a new generation of full-power micro-computer control system
- ⊔ Equipped with original Cummins Tier 2 or Tier 3 engine
- ⊔ Existing types: 920D, 922D, 923D, 925D

Previous Generation
 Currently in production
 Currently being introduced

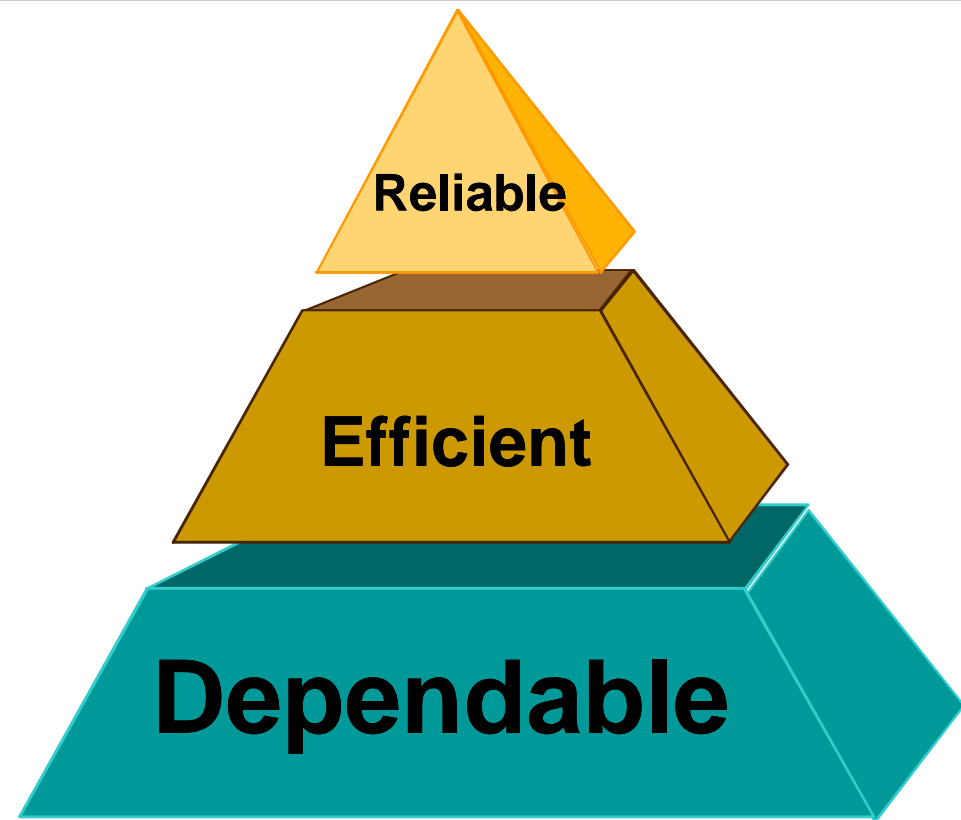
Main features of LiuGong's D - Series excavator

REACHING NEW HEIGHTS

Changes in the new D-Series make our units:

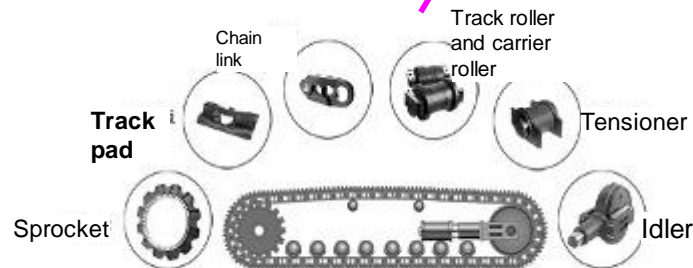
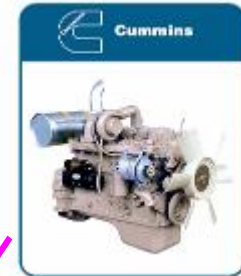
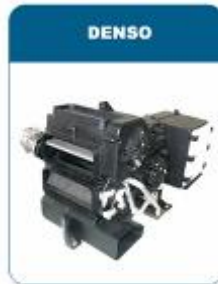


Superior for dirt work



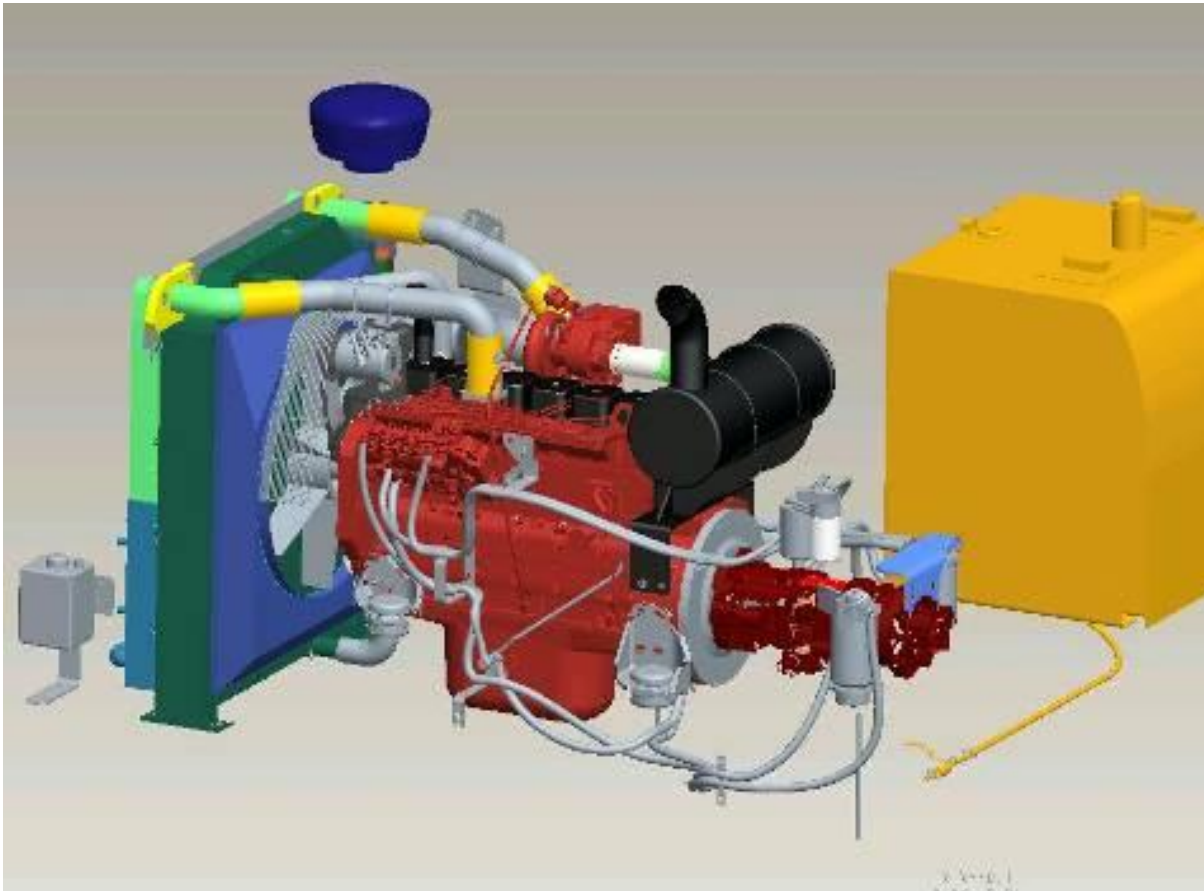
Proven Design Components

REACHING NEW HEIGHTS



Powerful – Cummins Engine

REACHING NEW HEIGHTS



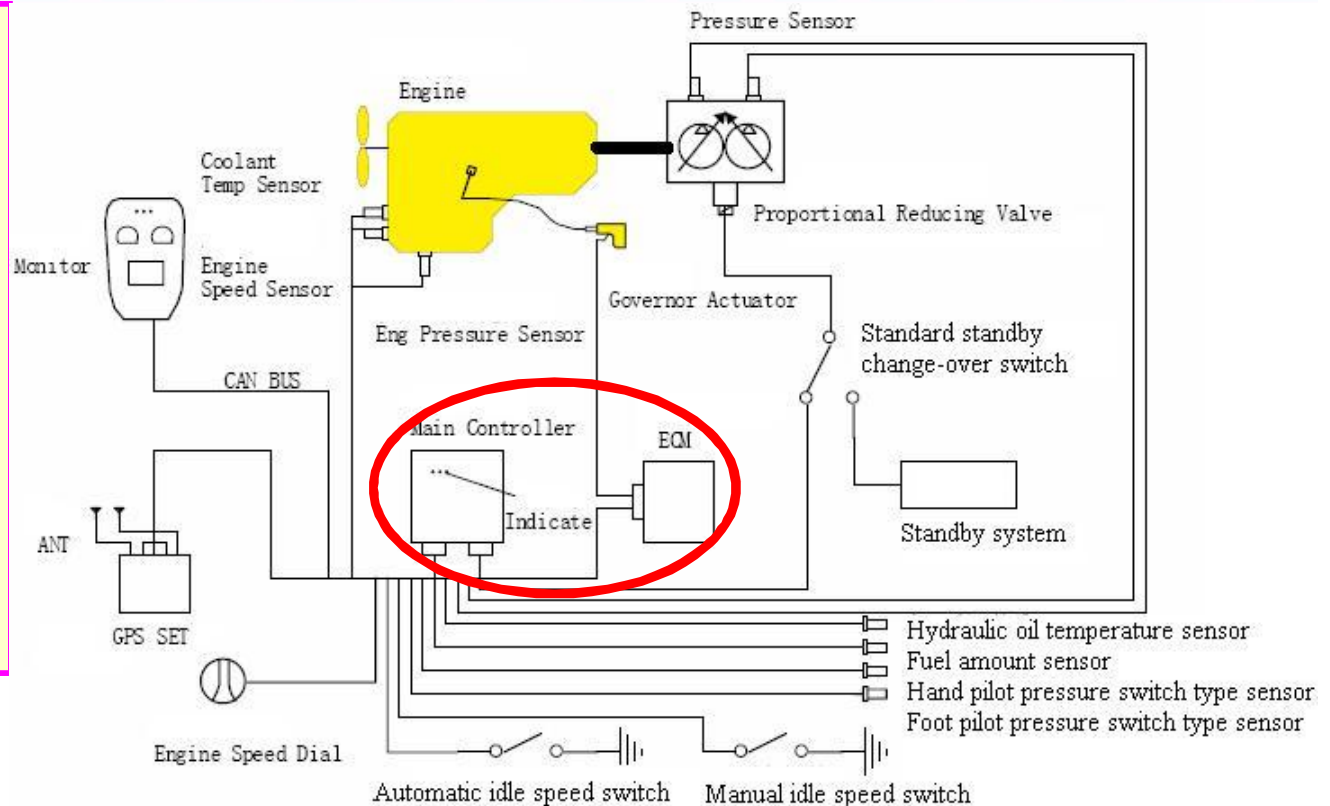
- World class name
- Turbocharged / inter-cooled
- Power even at high elevation
- Meets tier 3 emission standards.
- Burns clean with Low fuel consumption rate.
- Low noise.
- Extremely reliable and durable
- Parts availability
- Name recognition
- A Global Brand with a Global Footprint for support

**Support
Tier2/Tier3**

D – Series utilizes a new Computer Aided Power Control system REACHING NEW HEIGHTS

CAPC - Computer Aided Power Control system

- Ø LiuGong's full-power control system with LG Patent
- Ø Utilizes **Electronic Monitoring** of the Engine
- Ø Makes unit efficient and easy to operate while saving fuel



- CAPC constantly monitors engine RPM's & Pump Pressure - to match speed and power with ground conditions
- CAPC improves the load sensing capability of our excavators to make them easier to operate and more productive
- CAPC gives the operator and extra sense of feel

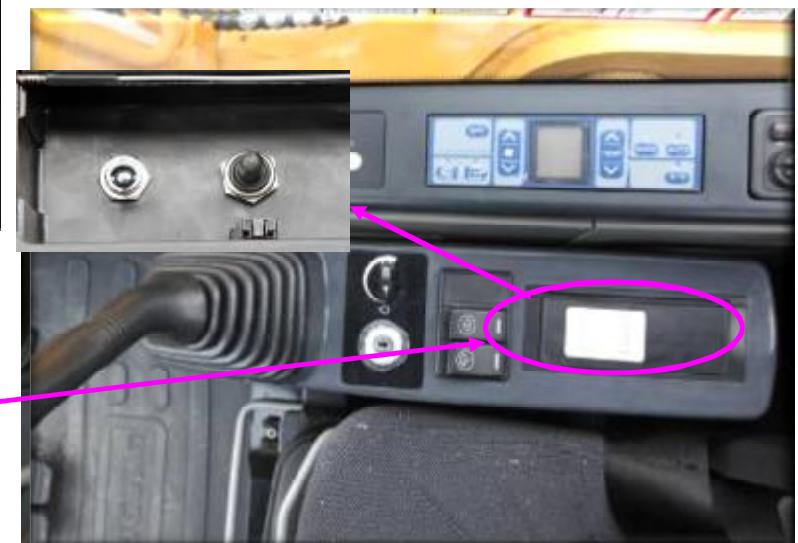
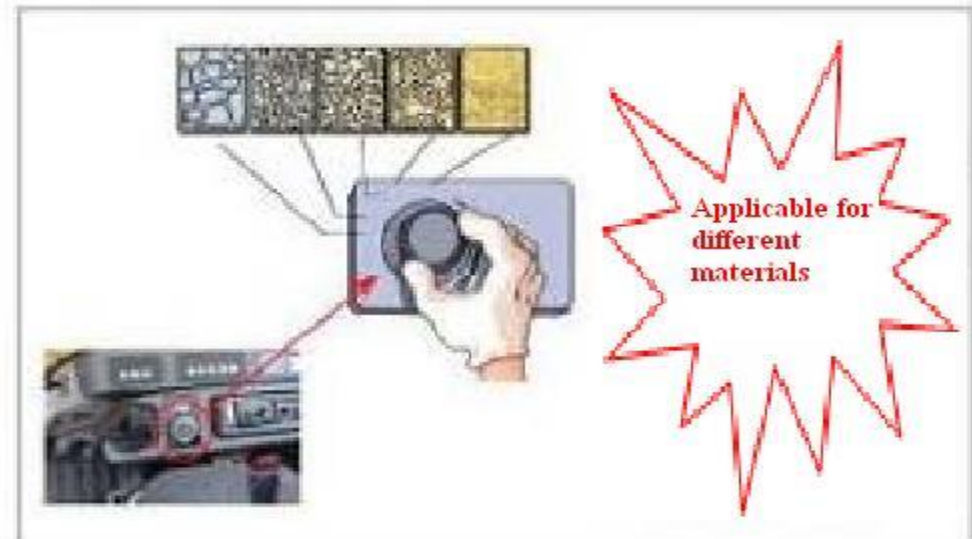
Engine speed control

REACHING NEW HEIGHTS

CAPC allows multiple settings for the throttle position:

- Powerful digging mode
- Economical mode
- Light mode
- Precision Working mode
- Special Application mode

Matches excavator to ground conditions



Emergency mode function allows an operator to keep working even if the controller goes down.

Basically, allows the operator to revert back to the old 225C

Other Functional Characteristics

REACHING NEW HEIGHTS

Power Boost Function

Button or right joystick

8 second boost

Allows operator to maintain productivity in changing conditions



Other Functional Characteristics

REACHING NEW HEIGHTS

Auto Idle Function

- **More economical**
- **Saves Fuel**
- **Quieter**
- **Adds to engine life**



No action for 5 sec,
engin will save fuel
for you automatically

Other Functional Characteristics

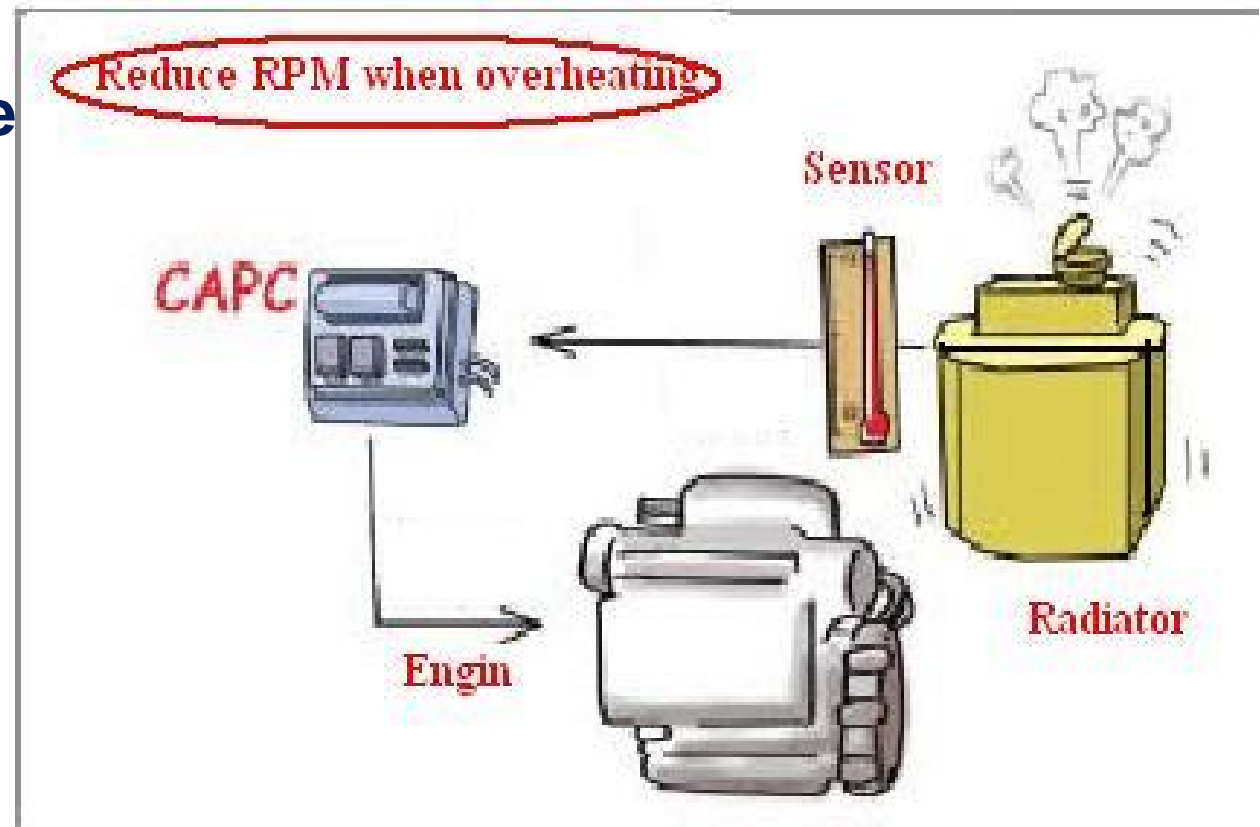
REACHING NEW HEIGHTS

Overheating Protection : For working in hot climates and confined areas

CAPC will automatically reduce engine RPM

Overheating protection protects the owners investment

Can save a lot of money



LCD Monitor

REACHING NEW HEIGHTS

Simple to operate and easy to read and check status

Screen is easy and clear to read



Simple to check all status screens



Displays Maintenance Information.

If user friendly then people will use it.



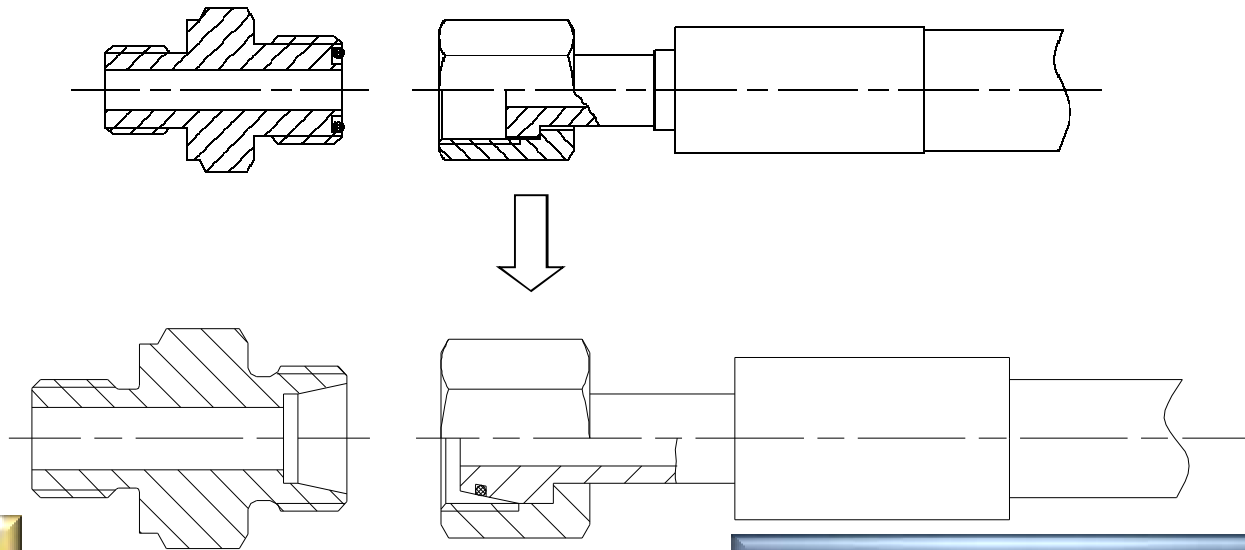
It is visual and with an alarm inserted.

Hydraulic system: Improved Reliability and Durability

REACHING NEW HEIGHTS

Improved reliability: In Hydraulic System

- I Changed from flat face O-ring connectors
- I New 24° cone type connector (with O-ring).
- Ø Improves the seal performance under vibration



- Improved connection especially where Vibration is an issue.
- Fewer leaks



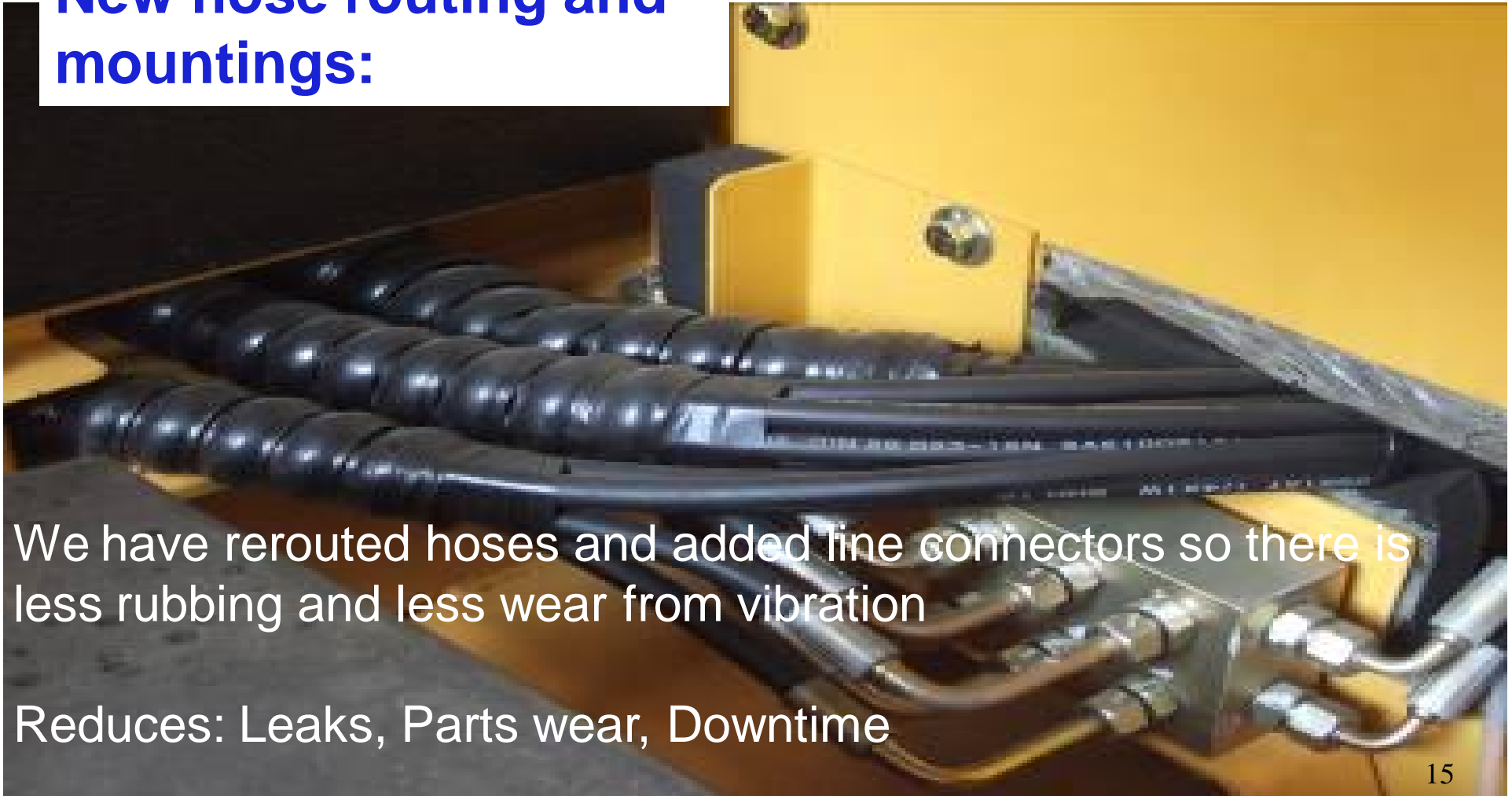
Hydraulic system: Improved Reliability and Durability

REACHING NEW HEIGHTS

New hose routing and mountings:

We have rerouted hoses and added line connectors so there is less rubbing and less wear from vibration

Reduces: Leaks, Parts wear, Downtime



Electrical system: Improved reliability and durability

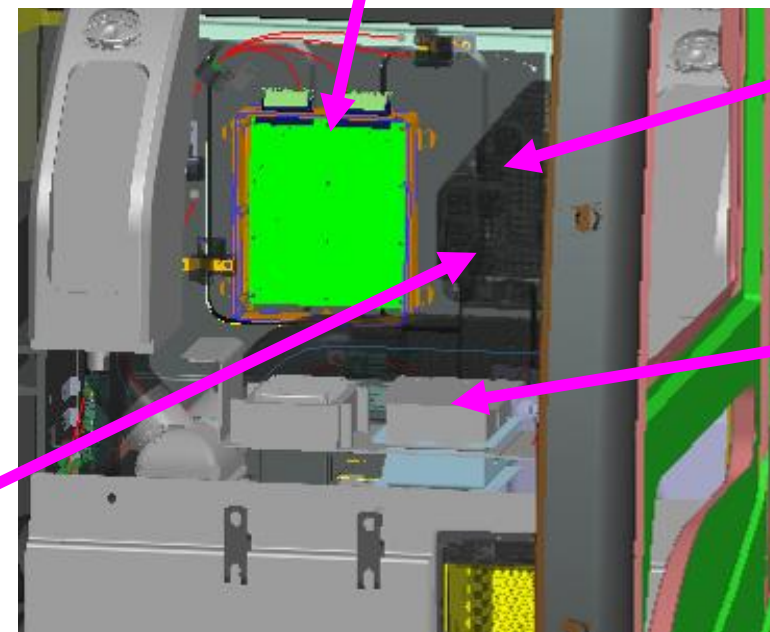
REACHING NEW HEIGHTS

Improved the layout of the electrical components:

- Electrical components are now behind the seat inside the cabin
- Less Dirt
- Less Dust
- Less Moisture
- Easier to work on – especially when it is raining



Fuses box



Main controller

Relay

Actuator

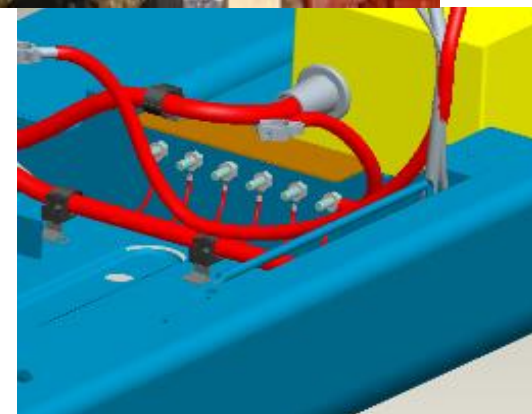
Electrical system: Improved Reliability and Durability REACHING NEW HEIGHTS

Improved the routing and mounting of electrical lines:

- Improved layout will decrease the wear caused by vibration and friction
- Changed to a multi-point ground system
 - reduces electrical shorts
 - easier to trace shorts
 - fewer service issues



centralized grounding wire changed to multiple-point grounding wires



Comfortable operating Environment

REACHING NEW HEIGHTS

Spacious cab:

- Ø 1008mm (39.7") wide, one of the most spacious cabs in this industry
- Ø Meets all ISO standards for cabins
- Ø Incorporates our safety interlock system which locks down hydraulics for safety



Comfortable operating environment

REACHING NEW HEIGHTS

Auto sensing A/C

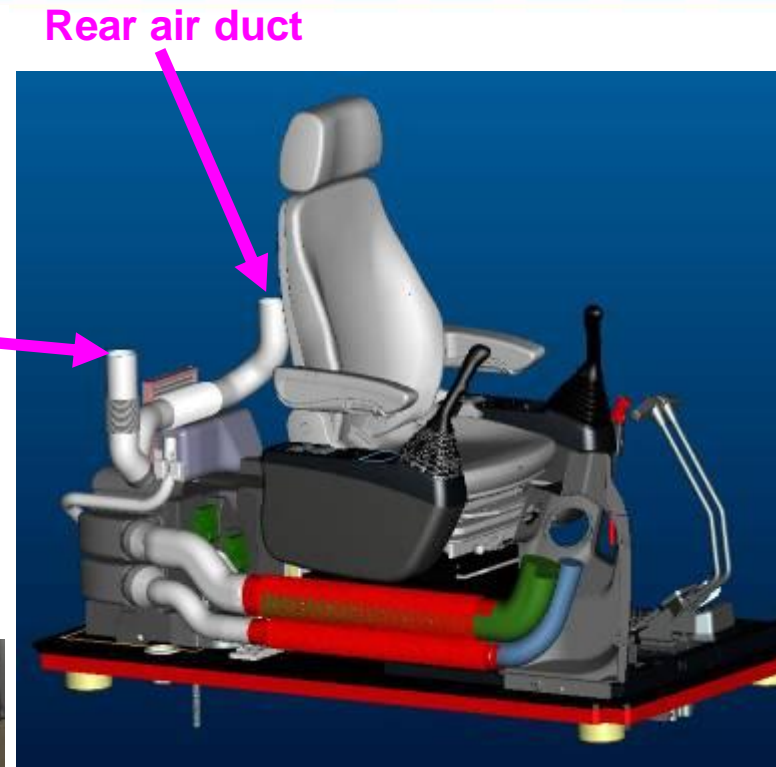
- Ø Large Capacity (5000kcal(SAE) A/C puts out a large volume of cool air
- Ø New air duct arrangement improves air flow
- Ø Offers internal recirculation mode and external fresh air supply mode (filtered)
- Ø Operators have better control of their environment year round



Simple Air Conditioning / Heater operation controller, easy to operate



Air outlet for feet



Larger diameter air ducts handle more air volume for better circulation

- Faster cooling
- Less wind noise
- Even flow of air
- Window defrost vent

Comfortable operating environment

REACHING NEW HEIGHTS

Operator friendly control levers

Less resistance so less pressure to stroke the valve.

Operator won't get tired even after a long day of operation

New Pedal Design

Pedal design is more ergonomic -- more comfort allows precise and easy operation

More room on pedals for muddy boots



Improved work environment with D-Series

REACHING NEW HEIGHTS



Comfortable environment for operator



Defrosting vent for front window with better circulation



Storage space



Safety lock – reduces accidents



Improved wiper mounting bracket

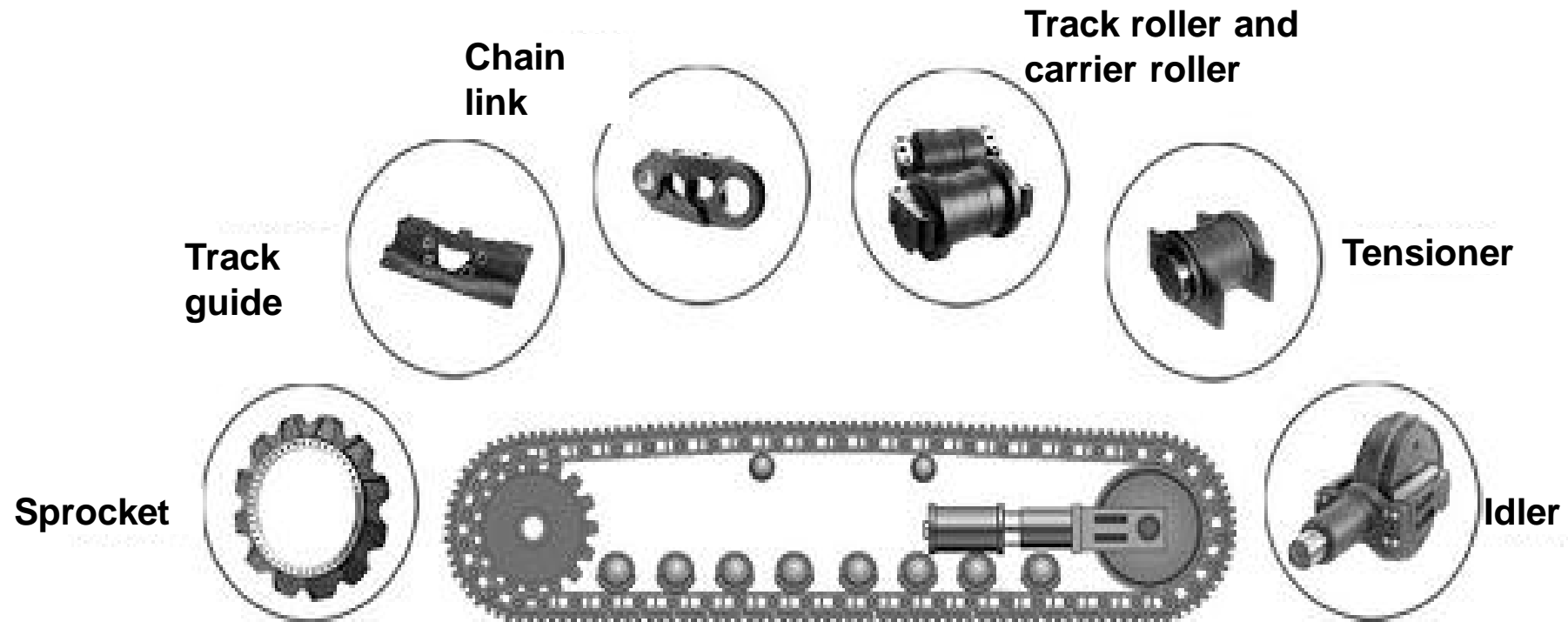


Speaker system improved

Solid and durable undercarriage parts

REACHING NEW HEIGHTS

Undercarriage parts from well known manufacturers
with proven reliability



Easy access maintenance points for serviceability

REACHING NEW HEIGHTS



Easy to Replace air filter



Easy to clean radiator

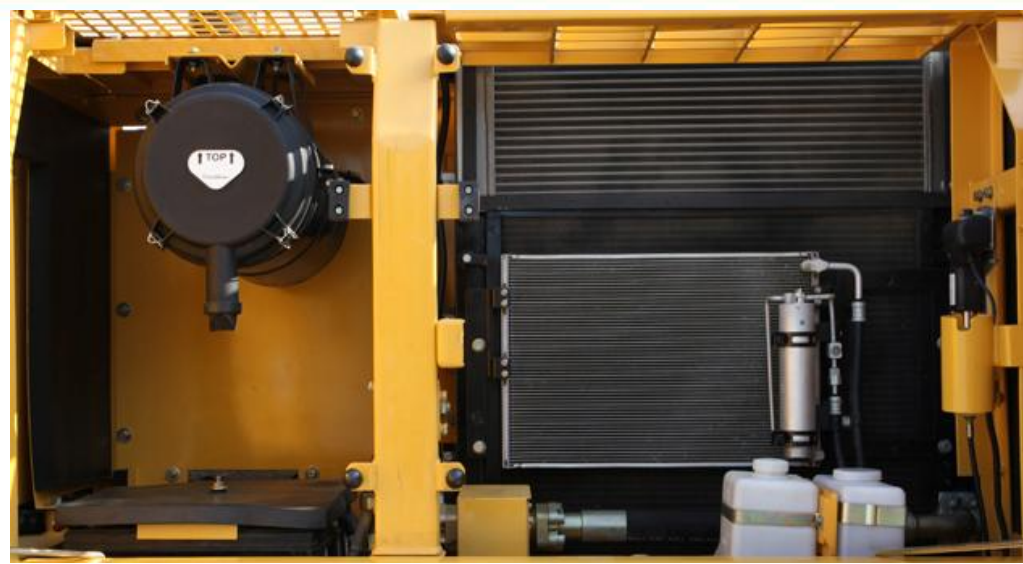


Impurities drainage valve for fuel tank



Simple and convenient maintenance

REACHING NEW HEIGHTS



Engine oil drain port



Replace A/C filter



Swing motor oil drain

Improved appearance

REACHING NEW HEIGHTS



C series



D series

Schedule: D-Series Currently in Production

REACHING NEW HEIGHTS

§ Changes discussed will improve our product, our reputation and brand recognition

Model	2010				2011						
	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
922LC											
925LC											
920D											
922D											
923D											
925D											

	Only for EU/Russia
	Current production
	Interim period

We will see you in the beautiful
city of Liuzhou on Nov. 25th REACHING NEW HEIGHTS

Enjoy the Excavator factory
tour on Thursday!
Thank You !

