



# Maintenance Calculator

## Get Started!



*Doosan purchased Bobcat Company from Ingersoll-Rand Company in 2007. Any reference to Ingersoll-Rand Company or use of trademarks, service marks, logos, or other proprietary identifying marks belonging to Ingersoll-Rand Company in this manual is historical or nominative in nature, and is not meant to suggest a current affiliation between Ingersoll-Rand Company and Doosan Company or the products of either.*



April 2012  
Revised (10-12)

# Summary

---

Why?

Installation

How does it work ?

Configuration

- ✓ Configuration: Economical Dealer Data
- ✓ Configuration: Oil Prices
- ✓ Configuration: Filters & Belts Prices
- ✓ Configuration: Maintenance Time

Recommendations



# Why?

---

The **Maintenance Calculator** is designed to help the dealer quote:

- ✓ Maintenance contract
- ✓ Scheduled maintenance
- ✓ Warranty extension

**Maximum 5 clicks, less than 3 min!**

This tool represents a base for quotation.

The dealer can then adapt the result to his own objectives.

# Installation

The maintenance calculator is basically designed for Microsoft Access 2010.

In order to run this software, proceed as follow:

- ✓ Save the compressed file
- ✓ Extract the file on your hard disc
- ✓ We strongly recommend to save one copy as back up.



MaintenanceCalculatorEuro\_D...  
394 Ko



MaintenanceCalculatorEuro\_D...  
Microsoft Office Access 2007 ...  
2 152 Ko

If your computer is not equipped with Microsoft Access 2010, no need to purchase a new License. The database will easily run using AccessRuntime (Stand alone usage or update Access 2007).

Please note there are 2 different versions of AccessRunTime: 32 or 64 bit  
Download the correct version according to the Operating System installed on your computer. The following slide will give you the link where you can download AccessRunTime.



AccessRuntime



AccessRuntime\_X64

<http://www.microsoft.com/download/en/details.aspx?id=10910>

## Download Center

Windows Office Product downloads Download categories Security Resources



### Microsoft Access 2010 Runtime

[Subscribe](#)

#### Quick links

- [Overview](#)
- [System requirements](#)
- [Instructions](#)



The Microsoft Access 2010 Runtime enables you to distribute Access 2010 applications to users who do not have the full version of Access 2010 installed on their computers.

#### Quick details

Version: 1 Date Published: 5/10/2010  
Change Language:

#### Files in this download

The links in this section correspond to files available for this download. Download the files appropriate for you.

File Name	Size	
AccessRuntime.exe	175.5 MB	<a href="#">DOWNLOAD</a>
AccessRuntime_X64.exe	212.4 MB	<a href="#">DOWNLOAD</a>

#### Overview

Microsoft Access 2010 provides a rich platform for developing database management solutions with easy-to-use customization tools. If no end-user customization is required (including report modifications), you can choose to distribute those Access 2010 solutions so that they run without requiring a full installation of Access 2010. To do so, you must package and distribute your application with the Access 2010 Runtime.

The Access 2010 Runtime is similar to previous runtimes in that all design-related UI is either removed or disabled.

You do not need to buy any special product in order to redistribute the Access 2010 Runtime. You can freely redistribute it or point users to this download.

[↑ Top of page](#)

# How does it work?

## Main Screen

The screenshot shows a Microsoft Access application window titled "MaintenanceCalculatorEuro\_Doosan201202 : Base de données (Access 2007) - Microsoft Access". The interface features a ribbon menu with various tools like "Couper", "Copier", "Coller", "Police", "Texte enrichi", "Nouveau", "Enregistrer", "Supprimer", "Orthographe", "Plus", "Sélection", "Options avancées", "Appliquer le filtre", "Trier et filtrer", "Remplacer", "Rechercher", "Atteindre", and "Sélectionner".

Below the ribbon, there is a security warning: "Avertissement de sécurité Du contenu de la base de données a été désactivé Options...".

The main content area has a blue header with the "DOOSAN" logo on the left, the title "Planned Maintenance Quotation" in the center, and the "Bobcat" logo on the right. Below the header is a "Machine Designation" dropdown menu.

The main form is divided into two columns: "CONTRACT" and "SCHEDULED MAINTENANCE".

CONTRACT		SCHEDULED MAINTENANCE	
Total operating hours	<input type="text"/>	Maintenance Type	<input type="text"/>
Length of contract	<input type="text"/> years		
Travel Cost to perform 1 Service	<input type="text"/> <input type="button" value="Quote !"/>		<input type="button" value="Quote !"/>

At the bottom of the form, there is a disclaimer: "Bobcat / Doosan Trading LTD does not guarantee nor accepts any responsibility regarding the accuracy and completeness of the information produced from this application. Bobcat / Doosan Trading Ltd reserves the right to change any of the information at any time without notice." and a "Configuration" button.

The status bar at the bottom shows "Enr: 14 < 1 sur 1 > | Aucun filtre | Rechercher".



# How does it work?

MaintenanceCalculatorEuro\_Doosan201202 : Base de données (Access 2007) - Microsoft Access

Accueil

Couper  
Coller  
Copier

Police

Texte enrichi

Actualiser tout

Nouveau

Enregistrer

Supprimer

Enregistrements

Orthographe

Plus

Sélection

Options avancées

Appliquer le filtre

Trier et filtrer

Remplacer

Atteindre

Rechercher

Sélectionner

Rechercher

Avertissement de sécurité Du contenu de la base de données a été désactivé Options...

**DOOSAN** **Planned Maintenance Quotation** **Bobcat.**

Machine Designation

**CONTRACT** **SCHEDULED MAINTENANCE**

Total operating hours

Length of contract years

Travel Cost to perform 1 Service

Quote !

Maintenance Type

Quote !

Bobcat / Doosan Trading LTD does not guarantee nor accepts any responsibility regarding the accuracy and completeness of the information produced from this application.  
Bobcat / Doosan Trading Ltd reserves the right to change any of the information at any time without notice.

Configuration

Enr: M 1 sur 1 Aucun filtre Rechercher

**Get the maintenance contract quotation in 5 clicks max !**

1. Select the machine
2. Indicate the Total operating hours performed during the contract
3. Duration of the contract
4. Travel cost
5. Get the result !

# How does it work?

## Result of a Service Contract quotation slide 1/3



# Service Contract Quotation



Machine DL200

Serial Number

Total working hours 4000

Length of Contract in Years 1,84033462773869E-75

 [Exit](#)   [New quotation](#)



### Oils

Maintenance Point	Volume	First Maintenance	Maintenance Periodicity	Minimum maintenance / Year	Oil Number	Oil Designation	Packaging Size	Current Price / liter	Volume needed	Total Price (contract)
Engine oil	28	50	500	1	EOD	Engine oil	25	0,00 €	224	0,15 €
Coolant	40	2000	2000	1	CD	Coolant	25	0,00 €	80	0,05 €
Front/ Rear axle oil	38	500	1500	1	AOD	Axle oil	25	0,00 €	114	0,08 €
Trasmission oil	30	50	1000	1	TOD	Transmission oil	25	0,00 €	120	0,08 €
Hydraulic oil	115	2000	2000	1	HOD	Hydraulic oil	25	0,00 €	230	0,16 €
										<b>0,52 €</b>

# How does it work?

## Result of a Service Contract quotation slide 2/3



### Filters and belts

Maintenance Point	Service to perform	First Maintenance	Maintenance Periodicity	Minimum Maintenance / Year	Part Number	Part Number Current Price	Quantity / Maintenance	Total Number	Total Price (contract)
Engine oil Filter	Replace filter	50	500	1	95.05510-5032	55,28 €	1	8	451,11 €
Fuel filter	Replace filter	500	500	1	95.12503-5026	24,57 €	1	8	200,46 €
Pre fuel filter	Replace filter	500	500	1	K1006530	29,38 €	1	8	239,77 €
Hydraulic oil filter	Replace filter	50	1000	1	474-00055	117,10 €	1	4	477,77 €
Pilot filter	Replace filter	500	500	1	K1009106	36,28 €	1	8	296,07 €
Trasmission filter	Replace filter	250	1000	1	974-00021	65,77 €	1	4	268,33 €
Air Cleaner Outer Element	Replace filter	1000	1000	1	974-00040	78,40 €	1	4	319,87 €
Air Cleaner inner Element	Replace filter	2000	2000	1	974-00039	44,13 €	1	2	90,03 €
AC Cabin filter	Replace filter	1000	1000	1	471-00107	61,62 €	1	4	251,40 €
Air Breather Element	Replace filter	1000	1000	1	K1029257	18,33 €	1	4	74,80 €
Aircon Filter	Replace filter	1000	1000	1	400402-00001	35,27 €	1	4	143,89 €
belts Alternator	Replace the belt	1000	1000	1	65.96801-0194	22,15 €	1	4	90,37 €
Aircon compressor belt	Replace the belt	1000	1000	1	2106-1019D25	14,05 €	1	4	57,32 €
									<b>2 961,20 €</b>

# How does it work?

## Result of a Service Contract quotation slide 3/3



### Labor and travel

Maintenance Periodicity	Number of Maintenances	Time / Maintenance	Total Maintenance Time	Labor rate	Total Labor Cost (Contract)	Cost of 1 Travel	Total Travel Cost (Contract)
250	8	3	24	58	1 420 €	100 €	800 €
500	4	4	16	58	947 €	100 €	400 €
1000	2	5	10	58	592 €	100 €	200 €
2000	1	10	10	58	592 €	100 €	100 €
4000	1	10	10	58	592 €	100 €	100 €
8000	0	10	0	58	0 €	100 €	0 €
					<b>4 141 €</b>		<b>1 600 €</b>

Labor and travel costs to perform the first maintenance (50 hours and/or 100 hours) are not taken in account in the quotation above.



### Warranty Extension

Coverage	Type	Years	Hours	Price
Full Machine	Parts, Labor and Mileage	2	4000	<b>1 417,00 €</b>
Full Machine	Parts Only	2	4000	<b>850,00 €</b>
PowerTrain	Parts, Labor and Mileage	2	4000	<b>850,00 €</b>
PowerTrain	Parts Only	2	4000	<b>512,00 €</b>

Warranty extension proposal is also displayed if the duration of the contract matches with the warranty extension policy. If not, no result is displayed.

# How does it work?

MaintenanceCalculatorEuro\_Doosan201202 : Base de données (Access 2007) - Microsoft Access

Accueil

DOOSAN

## Planned Maintenance Quotation

Bobcat

Machine Designation

CONTRACT		SCHEDULED MAINTENANCE	
Total operating hours	<input type="text"/>	Maintenance Type	<input type="text"/>
Length of contract	<input type="text"/> years		
Travel Cost to perform 1 Service	<input type="text"/>		

Quote !

Quote !

Configuration

Enr: 1 sur 1

**Get the Scheduled Maintenance quotation in 3 clicks max !**

1. Select the machine
2. Select the maintenance type
3. Quote



# How does it work?

## Result of a Scheduled Maintenance quotation slide 1/1



# Scheduled Maintenance Quotation





Exit

New quotation

Maintenance Point	Volume needed	Periodicity	First Maintenance	Service mini requested / Year	Oil Designation	Oil Number	Packaging Size	Price / Liter	Total Cost
Engine oil	28	500	50	1	Engine oil	EOD	25	0,00 €	0,02 €
									0,02 €

Maintenance Point	Description	Periodicity	First Maintenance	Service mini requested / year	Part Number	Quantity	Total Cost
Engine oil Filter	Engine Oil Filter	500	50	1	95.05510-5032	1	55,28 €
Fuel filter	Fuel Filter	500	500	1	95.12503-5026	1	24,57 €
Pre fuel filter	Fuel PreFilter	500	500	1	K1006530	1	29,38 €
Pilot filter	Pilot filter	500	500	1	K1009106	1	36,28 €
							145,52 €

Service Type	Maintenance Time	Labor Rate	Labor Cost
500	4	58	232,00 €



# Configuration

MaintenanceCalculatorEuro\_Doosan201202 : Base de données (Access 2007) - Microsoft Access

Accueil

Couper Copier Collier Presse-papiers Police Texte enrichi Actualiser tout Enregistrer Supprimer Enregistrements Nouveau Orthographe Plus Enregistrer Sélection Options avancées Appliquer le filtre Trier et filtrer Rechercher Remplacer Atteindre Sélectionner Rechercher

Avertissement de sécurité Du contenu de la base de données a été désactivé Options...

**DOOSAN** **Planned Maintenance Quotation** **Bobcat.**

Machine Designation

CONTRACT		SCHEDULED MAINTENANCE	
Total operating hours	<input type="text"/>		
Length of contract	<input type="text"/> years		
Travel Cost to perform 1 Service	<input type="text"/> <input type="button" value="Quote !"/>	Maintenance Type <input type="text"/>	<input type="button" value="Quote !"/>

Bobcat / Doosan Trading LTD does not guarantee nor accepts any responsibility regarding the accuracy and completeness of the information produced from this application.  
Bobcat / Doosan Trading Ltd reserves the right to change any of the information at any time without notice.

Enr: 1 sur 1 | Aucun filtre | Rechercher



# Configuration

Microsoft Access

Fichier

**DOOSAN** Configuration Module **Bobcat.**

<b>Economical Dealer Data</b>	<a href="#">Modify</a>	"Discount" : % applied on price list price ("5" means 5%). "Landing Cost Factor" : added cost in % ("20" means 20%). "Margins" : the number is directly the final gross margin done in % ("40" means 40%). "Inflation" : inflation by year in % ("3" means 3%). Labor rate directly in Euros, Dollars or Pounds.
<b>Oils prices</b>	<a href="#">Modify</a>	Purchase prices (Price list) of oils and spare parts (Filters, belts). In Dollars, pounds or euros.
<b>Filters and Belts prices</b>	<a href="#">Modify</a>	
<b>Maintenance Times</b>	<a href="#">Modify</a>	Time in hours to perform the planned maintenance (250 hours, 500 hours, 1000 hours, ...). To be set for every machine designation.
<b>Maintenance table</b>	<a href="#">Modify</a>	Detail of all the services, spare parts, oils use to maintain the machines.

[Exit](#)

Back to main screen

Bobcat / Doosan Trading LTD does not guarantee nor accepts any responsibility regarding the accuracy and completeness of the information produced from this application.  
Bobcat / Doosan Trading Ltd reserves the right to change any of the information at any time without notice.

# Configuration: Economical Dealer Data

Microsoft Access

Fichier

Discount, Landing Cost Factor, Gross Margin, Inflation Rate, Labor Rate : set your rates in Green. Save

Family	Discount in % on Price List	Landing Cost Factor in %	Margin or Labor rate	Inflation % / Year	Comment
BeltDoosan	0	0	40	2	"Discount " as % applied on the parts price list, "landing cost factor" as % applied on the purchase price. Margin in % you want to make by selling filters. Linear "Inflation" in % applied on the item,
FilterDoosan	0	0	40	2	"Discount " as % applied on the parts price list, "landing cost factor" as % applied on the purchase price. Margin in % you want to make by selling filters. Linear "Inflation" in % applied on the item,
Labor	0	0	58	2	Labor in Euros, Pounds or Dollars
OilDoosan	0	0	40	2	Discount " as % applied on the parts price list, "landing cost factor" as % applied on the purchase price. Margin in % you want to make by selling filters. Linear "Inflation" in % applied on the item,
*	0	0	0	0	

All parameters in green can be modified. Click « Save » to implement all modifications in the data base. The software will return to the main configuration screen.

# Configuration: Oil Prices

 Oils : Update your purchase prices in green

Oil Number	Oil Designation	Oil Price List	Packaging Size in liters
AOD	Axle oil	0,01	25
CD	Coolant	0,01	25
EOD	Engine oil	0,01	25
HOD	Hydraulic oil	0,01	25
SOD	Swing and travel reduction device oil	0,01	25
TOD	Transmission oil	0,01	25

All parameters in green can be modified. Click « Save » to implement all modifications in the data base. The software will return to the main configuration screen.



# Configuration: Filters & Belts Prices

SpareParts : Update your purchase prices in green Save

Part Number	Part Number Description	Part Number Price List	Family
2106-1019D10	belts Aircon Comp	6,45	BeltDoosan
2106-1019D24	belts Aircon Comp	11,61	BeltDoosan
2106-1019D25	belts Aircon Comp	8,43	BeltDoosan
2106-1019D28	belts Aircon Comp	11,55	BeltDoosan
2106-1019D29	belts Aircon Comp	9,04	BeltDoosan
2106-1021D26	belts Aircon Comp	6,69	BeltDoosan
2471-6050A	AC inner filter	21,16	FilterDoosan
2471-9401A	Oil Suction Filter	48,23	FilterDoosan

All parameters in green can be modified. Click « Save » to implement all modifications in the data base. The software will return to the main configuration screen.

# Configuration: Maintenance Time



MaintenanceTime : modify only the parameter in green (time in hour).

Machine	Service Type in hours	Maintenance Time
DX140LC	250	3
DX140LC	500	3
DX140LC	1000	4
DX140LC	2000	5,5
DX140LC	4000	5,5
DX140LC	8000	5,5
DX180LC	250	3
DX180LC	500	3
DX180LC	1000	3
DX180LC	2000	4
DX180LC	4000	5,5

Enr : 1 sur 246 Non filtré Rechercher

All parameters in green can be modified. Click « Save » to implement all modifications in the data base. The software will return to the main configuration screen.



# Configuration: Maintenance Table

Microsoft Access

Fichier

MaintenancePoint Save

Machine	Maintenance Point	Service to perform	Service Type	Periodicity	First Time	Mini Nber of Services /Year	Part Number	Part Number Quantity	Oil Number	Oil Volume
DX180LC	Air-Conditioning Outer Filter	Clean Air-Conditioning Outer Filter	CLEAN	500	500	4				
DX180LC	Front End Attachments	Inspect Pins and Bushings of the Front End Attachments for Signs of Wear.	CHECK	250	250	12				
DX180LC	Battery	Check Fluid Levels in Batteries and Battery Charge Levels	CHECK	250	250	12				
DX180LC	Nuts and Bolts	Inspect for Any Loose or Missing Nuts and Bolts.	CHECK	250	250	12				
DX225LC	Swing Gear and Pinion	Grease Swing Gear and Pinion.	GREASE	500	500	4				
DX180LC	Swing Gear and Pinion	Grease Swing Gear and Pinion.	GREASE	500	500	4				
DX180LC	Arm and Front Attachment Pins	Grease Arm and Front Attachment Pins.	GREASE	250	250	12				
DX180LC	Air-Conditioning Inner Filter	Check and Clean Air-Conditioning Inner Filter.	CLEAN	500	500	4				
DX180LC	Oil Cooler	Clean Oil Cooler.	CLEAN	500	500	4				
DX180LC	Radiator	Clean Radiator.	CLEAN	500	500	4				

Enr : 1 sur 783 Non filtré Rechercher

## Recommendations:

---

**Doosan / Bobcat Trading Ltd does not guarantee nor accepts any responsibility regarding the accuracy and the completeness of the information produced by this application.**

**Doosan / Bobcat Trading Ltd reserves the right to change any of the information at any time without prior notification.**

Updates will be released regularly to integrate new models.

The update will include the complete database, which means that the modifications you have applied in the original file **WILL NOT BE IMPLEMENTED IN THE UPDATED VERSIONS.**

We strongly recommend to assign the responsibility of the Maintenance Calculator to one person in each facility. This person will have to support sales forces and update the settings implemented locally.



**THANK YOU**

