

ภาคผนวก

```

Public Const Scal = 0.03

Function reg(OD, OW, W)
    If (W - 2 * OD - OW) > 0 Then
        reg = 2
    ElseIf (W - 1.866 * OD - OW) > 0 Then
        reg = 3
    Else
        reg = 1
    End If
End Function

Function Max(a, b)
    If (a > b) Then
        Max = a
    Else
        Max = b
    End If
End Function

Sub regulation()
    Sheets("Master").Activate
    W = Cells(3, 2)
    H = Cells(3, 3)
    L = Cells(3, 4)
    Row = 8
    Do Until Cells(Row, 2) = ""
        OD = Cells(Row, 3)
        OW = Cells(Row, 4)
        Cells(Row, 7) = reg(OD, OW, W)
        Row = Row + 1
    Loop
End Sub

Sub ClearNoneAssign()
    For i = 7 To 11
        If (Sheets("Load").Cells(i, 3) = "---none---") Then
            Sheets("Load").Cells(i, 9) = ""
        End If
    Next i
End Sub

Sub load()
    Dim initX, initY, X, Y As Double
    Dim OD, OW, Gap, Gap1, Gap2 As Double
    Dim W, H, LL As Double
    Dim Allowance, scl As Double
    ' Dim z As Double
    scl = 1.1

    Sheets("Reg").Activate
    ActiveSheet.DrawingObjects.Select
    Selection.Delete
    Sheets("Load").Activate

    ' Initial assign container condition

    W = Cells(4, 7) * Scal
    H = Cells(4, 8) * Scal

```

```
LL = Cells(4, 9) * Scal
```

```
' Initial assign coordinate for draw simulation area
```

```
initX = 500
initY = 3
X = initX
Y = initY
LL = LL + initY
nextX = initX
nextY = 0
Row = 7
L = 1
n = 1
Reg3first = 1
special = 0
```

```
' Check improper Tire size queing and any error parameter
```

```
For i = 7 To 12
    If (Sheets("Load").Cells(i, 8) = 0) Then
        If (Sheets("Load").Cells(i, 9) > 0) Then
            MsgBox ("Please clear Tire quantity for None-Assign Tire
size")
            Row = 200
            Exit For
        End If
    End If

    If (Sheets("Load").Cells(i, 4) = "-" ) Or
(Sheets("Load").Cells(i, 5) = "-") Then
        MsgBox ("Tire size " & Sheets("Load").Cells(i, 3) & _
" not available now, because waiting for update
master data." & _
Chr(10) & "Please assign other size.")
        Row = 200
        Exit For
    End If

    If (Sheets("Load").Cells(i, 8) = 3) Then
        If (Sheets("Load").Cells(i + 1, 8) > 0) And
(Sheets("Load").Cells(i + 1, 8) < 3) Then
            MsgBox ("Tire size queuing improper !" & Chr(10) &
"Please move Tire size" & _
Sheets("Load").Cells(i, 3) & " to the lastest.")
            Row = 200
            Exit For
        End If
    End If
Next i
```

```
' Draw Container
Sheets("Reg").Activate
```

```

ActiveSheet.Shapes.AddShape(msoShapeRectangle, initX, initY, W, LL
- initY).Select

```

```

Cells(2, 15) = initX
Cells(2, 16) = initY
Cells(2, 18) = W
Cells(2, 19) = LL

```

```

' Variable mm for program debugging
mm = 2

```

```

' Start loading tire to container

```

```

Do Until Sheets("Load").Cells(Row, 1) = ""
OD = Sheets("Load").Cells(Row, 4) * Scal
OW = Sheets("Load").Cells(Row, 5) * Scal
Allowance = Sheets("Load").Cells(Row, 12)
nextOD = Sheets("Load").Cells(Row + 1, 4) * Scal

```

```

Gap1 = Sqr(OD * OD + (W - 2 * OD) * (W - 2 * OD)) *
(Sqr(OD * OD + (W - 2 * OD) * (W - 2 * OD)) - OD) / OD
Gap2 = OD / 2 - Sqr(OD * OD / 4 - (OD / 2 - OW) * (OD / 2 -
OW))

```

```

If (Gap1 < Gap2) Then
Gap = Allowance * Gap1
Else
Gap = Allowance * Gap2
End If

```

```

' Gap = Allowance * Sqr(OD * OD + (W - 2 * OD) * (W - 2 * OD)) *
(Sqr(OD * OD + (W - 2 * OD) * (W - 2 * OD)) - OD) / OD

```

```

StackF = Sheets("Load").Cells(Row, 6)
StackV = Sheets("Load").Cells(Row, 7)
Regcase = Sheets("Load").Cells(Row, 8)
qty = Sheets("Load").Cells(Row, 9)
nextQty = Sheets("Load").Cells(Row + 1, 9)
ForgColor = Sheets("Load").Cells(Row, 11)
remain = qty

```

```

Do Until remain <= 0

```

```

' Case Regulation type is Straight line
If (Regcase = 1) Or (Regcase = 2) Then
' Load direction from left to right
If (L = 1) Then
If ((X + OD) < (initX + W)) Then
If (Y + OD > LL) Then
If (Y + OW * scl + Gap < LL) Then

' If (Cells(1, 30)) = 1 Then
' MsgBox ("Stack " & mm - 1)
' End If
' Cells(mm, 20) = mm - 1

```

```

' Cells(mm, 21) = X
' Cells(mm, 22) = Y
' Cells(mm, 23) = OD
' Cells(mm, 24) = OW
' Sheets("Load").Activate
' Sheets("Reg").Activate
' mm = mm + 1

```

```

ActiveSheet.Shapes.AddShape(msoShapeRectangle, X, Y + Gap, OD,
OW).Select

```

```

Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
    If (remain < StackV) Then
        Selection.Characters.Text = remain
        Selection.Characters.Font.Size = 6
    End If
    remain = remain - StackV
Else
    MsgBox ("The container is full!, Please adjust
quantity of previos size or reduce the lastest size by " & remain)
    remain = 0
End If
Else

```

```

    If (Cells(1, 30)) = 1 Then
        MsgBox ("Stack " & mm - 1)
    End If
    Cells(mm, 20) = mm - 1
    Cells(mm, 21) = X
    Cells(mm, 22) = Y
    Cells(mm, 23) = OD
    Cells(mm, 24) = OW
    Sheets("Load").Activate
    Sheets("Reg").Activate
    mm = mm + 1

```

```

    ActiveSheet.Shapes.AddShape(msoShapeOval, X, Y,
OD, OD).Select
    Selection.ShapeRange.Fill.ForeColor.SchemeColor
= ForgroundColor

```

```

    If (remain < StackF) Then
        Selection.Characters.Text = remain
        Selection.Characters.Font.Size = 6
    End If
    remain = remain - StackF
End If
X = X + OD
ElseIf ((X + OW) < (initX + W)) And (Y + OD < LL) Then
    X = initX + W - OW

```

```

' If (Cells(1, 30)) = 1 Then
'     MsgBox ("Stack " & mm - 1)
' End If
' Cells(mm, 20) = mm - 1

```

```

' Cells(mm, 21) = X
' Cells(mm, 22) = Y
' Cells(mm, 23) = OD
' Cells(mm, 24) = OW
' Sheets("Load").Activate
' Sheets("Reg").Activate
' mm = mm + 1

ActiveSheet.Shapes.AddShape(msoShapeRectangle, X,
Y, OW, OD).Select
Selection.ShapeRange.Fill.ForeColor.SchemeColor =
ForgColor

If (remain < StackV) Then
    Selection.Characters.Text = remain
    Selection.Characters.Font.Size = 6
End If
remain = remain - StackV
Y = Y + OD - Gap
X = initX + W
L = 0
Else
    If (remain > 0) Then
        If (Y + OD > LL) Then
            Y = Y + OW
            Y = Y + OW * scl
        Else
            Y = Y + OD - Gap
        End If
    End If
    X = initX + W
    L = 0
End If
End If

' Load direction from right to left
If (L = 0) And (remain > 0) Then
    If (X - OD > initX) Then
        If (Y + OD > LL) Then
            If (Y + OW * scl < LL) Then
                X = X - OD
            End If
        End If
    End If
End If

If (Cells(1, 30)) = 1 Then
    MsgBox ("Stack " & mm - 1)
End If
Cells(mm, 20) = mm - 1
Cells(mm, 21) = X
Cells(mm, 22) = Y
Cells(mm, 23) = OD
Cells(mm, 24) = OW
Sheets("Load").Activate
Sheets("Reg").Activate
mm = mm + 1

```



```

ActiveSheet.Shapes.AddShape(msoShapeRectangle, X,
Y, OW, OD).Select
Selection.ShapeRange.Fill.ForeColor.SchemeColor =
ForgColor

If (remain < StackV) Then
    Selection.Characters.Text = remain
    Selection.Characters.Font.Size = 6
End If
remain = remain - StackV
Y = Y + OD - Gap
X = initX
L = 1
Else
    If (Y + OD > LL) Then
        Y = Y + OW
        Y = Y + OW * scl
    Else
        Y = Y + OD - Gap
    End If
    X = initX
    L = 1
End If
End If
End If
' Finish loading current size

' Adjust Space before start to load next size

If (remain <= 0) Then
    Y = Y + Max(OD, Sheets("Load").Cells(Row + 1, 4) *
Scal) -
    Sheets("Load").Cells(Row + 1, 4) * Scal
End If

' Case Regulation type is 3 Triangle
'If (Y + OD) <= LL And (Regcase = 3) Then

If (Regcase = 3) Then
    If (L <= 1) Then
        Select Case L
            Case Is = 0
                If ((X - initX) > OD) And (X <> (initX + W))
Then
                    If (Cells(1, 30)) = 1 Then
                        MsgBox ("Stack " & mm - 1)
                    End If
                    Cells(mm, 20) = mm - 1
                    Cells(mm, 21) = X
                    Cells(mm, 22) = Y
                    Cells(mm, 23) = OD
                    Cells(mm, 24) = OW
                    Sheets("Load").Activate

```

```

        Sheets("Reg").Activate
        mm = mm + 1

        ActiveSheet.Shapes.AddShape(msoShapeOval, X -
OD, Y, OD, OD).Select

        Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
        If (remain < StackF) Then
            Selection.Characters.Text = remain
            Selection.Characters.Font.Size = 6
        End If
        remain = remain - StackF
        Y = Y + OD
        X = initX
        L = 2

        If (remain <= 4 * StackF)

Then
            Regcase = 1
            L = 1
            Y = Y - OD

        End If

        .....
        If (remain > 0) And (Regcase = 3) Then

            If (Cells(1, 30)) = 1 Then
                MsgBox ("Stack " & mm - 1)
            End If
            Cells(mm, 20) = mm - 1
            Cells(mm, 21) = X
            Cells(mm, 22) = Y
            Cells(mm, 23) = OD
            Cells(mm, 24) = OW
            Sheets("Load").Activate
            Sheets("Reg").Activate
            mm = mm + 1

        ActiveSheet.Shapes.AddShape(msoShapeRectangle, initX + W - OD, Y, OD,
OW).Select

        Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
        If (remain < StackV) Then
            Selection.Characters.Text = remain
            Selection.Characters.Font.Size = 6
        End If
        remain = remain - StackV
    End If

```



```

'           Sheets("Reg").Activate
'           mm = mm + 1

ActiveSheet.Shapes.AddShape(msoShapeOval, X,
Y, OD, OD).Select

Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
If (remain < StackF) Then
    Selection.Characters.Text = remain
    Selection.Characters.Font.Size = 6
End If
remain = remain - StackF
If (remain <= 0) Then
    special = 1
End If
Y = Y + OD
X = initX
L = 2

If (remain <= 4 * StackF)
Then
    Regcase = 1
    L = 0
    Y = Y - OD
End If

If (remain > 0) And (Regcase = 3) Then
'           If (Cells(1, 30)) = 1 Then
'               MsgBox ("Stack " & mm - 1)
'           End If
'           Cells(mm, 20) = mm - 1
'           Cells(mm, 21) = X
'           Cells(mm, 22) = Y
'           Cells(mm, 23) = OD
'           Cells(mm, 24) = OW
'           Sheets("Load").Activate
'           Sheets("Reg").Activate
'           mm = mm + 1

ActiveSheet.Shapes.AddShape(msoShapeRectangle, initX + W - OD, Y, OD,
OW).Select

Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
If (remain < StackV) Then
    Selection.Characters.Text = remain
    Selection.Characters.Font.Size = 6
End If
remain = remain - StackV
End If
Else

```

```

If (X <> initX) Then
    Y = Y + OD
End If
    X = initX

```

```

L = 2

```

```

.....

```

```

Then

```

```

If (remain <= 4 * StackF)

```

```

    Regcase = 1

```

```

    L = 0

```

```

    Y = Y - OD

```

```

End If

```

```

' If (Cells(1, 30)) = 1 Then

```

```

'     MsgBox ("Stack " & mm - 1)

```

```

' End If

```

```

' Cells(mm, 20) = mm - 1

```

```

' Cells(mm, 21) = X

```

```

' Cells(mm, 22) = Y

```

```

' Cells(mm, 23) = OD

```

```

' Cells(mm, 24) = OW

```

```

' Sheets("Load").Activate

```

```

' Sheets("Reg").Activate

```

```

' mm = mm + 1

```

```

' If ((Y + OW) < LL) Then

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```

'     If (Regcase = 3) Then

```

```

ActiveSheet.Shapes.AddShape(msoShapeRectangle, initX + W - OD, Y, OD,
OW).Select

```

```

Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgColor

```

```

    If (remain < StackV) Then

```

```

        Selection.Characters.Text = remain

```

```

        Selection.Characters.Font.Size = 6

```

```

    End If

```

```

    remain = remain - StackV

```

```

End If

```

```

' Else

```

```

'     MsgBox ("The container is full!, Please
adjust quantity of previos size or reduce the lastest size by " &
remain)

```

```

'     remain = 0

```

```

' End If

```

```

End If

```



```

End If
remain = remain - StackF
If (remain <= 2) And (remain > 0) And
(nextQty <= 0) Then

    '
    ' If (Cells(1, 30)) = 1 Then
    '     MsgBox ("Stack " & mm - 1)
    ' End If
    ' Cells(mm, 20) = mm - 1
    ' Cells(mm, 21) = X
    ' Cells(mm, 22) = Y
    ' Cells(mm, 23) = OD
    ' Cells(mm, 24) = OW
    ' Sheets("Load").Activate
    ' Sheets("Reg").Activate
    ' mm = mm + 1

ActiveSheet.Shapes.AddShape(msoShapeRectangle, initX + W - OD, Y + OD
- OW, OD, OW).Select

Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgColor
    If (remain < StackV) Then
        Selection.Characters.Text = remain
        Selection.Characters.Font.Size = 6
    End If
    remain = remain - StackV
End If
n = n + 1
X = X + OD * 0.866
Y = Y + OD / 2
Else
    Y = Y + OD / 2 - OW
    Do Until (Y + OW * scl < LL) Or (remain <=
0)
        Y = Y + OW
        Y = Y + OW * scl
        For i = 1 To 2

            '
            ' If (Cells(1, 30)) = 1 Then
            '     MsgBox ("Stack " & mm - 1)
            ' End If
            ' Cells(mm, 20) = mm - 1
            ' Cells(mm, 21) = X
            ' Cells(mm, 22) = Y
            ' Cells(mm, 23) = OD
            ' Cells(mm, 24) = OW
            ' Sheets("Load").Activate
            ' Sheets("Reg").Activate
            ' mm = mm + 1

```

```

ActiveSheet.Shapes.AddShape(msoShapeRectangle, X, Y, OD, OW).Select
Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
    If (remain < StackV) Then
        Selection.Characters.Text =
remain
        Selection.Characters.Font.Size =
6
        End If
        remain = remain - StackV
        If (remain <= 0) Then
            i = i + 1
        End If
        X = X + OD
    Next i
    X = initX
    Y = Y + OW
    Y = Y + OW * scl
    Loop
    If (remain > 0) Then
        MsgBox ("The container is full!, Please
adjust quantity of previos size or reduce the lastest size by " &
remain)
        remain = 0
    End If
End If
End If

Case Is = 2
    If (Y + OD < LL) Then

        If (Cells(1, 30)) = 1 Then
            MsgBox ("Stack " & mm - 1)
        End If
        Cells(mm, 20) = mm - 1
        Cells(mm, 21) = X
        Cells(mm, 22) = Y
        Cells(mm, 23) = OD
        Cells(mm, 24) = OW
        Sheets("Load").Activate
        Sheets("Reg").Activate
        mm = mm + 1

        ActiveSheet.Shapes.AddShape(msoShapeOval, X,
Y, OD, OD).Select
Selection.ShapeRange.Fill.ForeColor.SchemeColor = ForgroundColor
    If (remain < StackF) Then
        Selection.Characters.Text = remain
        Selection.Characters.Font.Size = 6
    End If
    remain = remain - StackF
    n = n + 1
    X = X + OD

```

```

Else
    MsgBox ("The container is full!,Please adjust
quantity of previos size or reduce the lastest size by " & remain -
2)

```

```

    remain = 0
End If

```

```

Case Is = 3

```

```

?
'
'      If (Cells(1, 30)) = 1 Then
'          MsgBox ("Stack " & mm - 1)
'      End If
'      Cells(mm, 20) = mm - 1
'      Cells(mm, 21) = X
'      Cells(mm, 22) = Y
'      Cells(mm, 23) = OD
'      Cells(mm, 24) = OW
'      Sheets("Load").Activate
'      Sheets("Reg").Activate
'      mm = mm + 1

X, Y, OW, OD).Select
= ForgroundColor
ActiveSheet.Shapes.AddShape(msoShapeRectangle,
Selection.ShapeRange.Fill.ForeColor.SchemeColor
If (remain < StackV) Then
    Selection.Characters.Text = remain
    Selection.Characters.Font.Size = 6
End If
remain = remain - StackV
n = 1
X = initX
Y = Y + OD / 2
End Select
End If

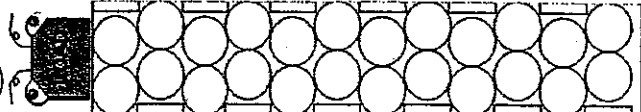
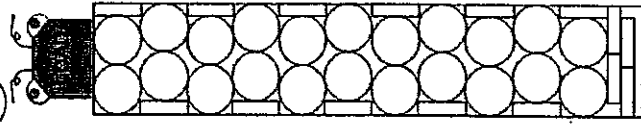
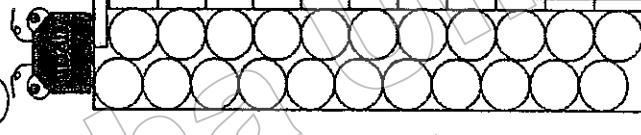
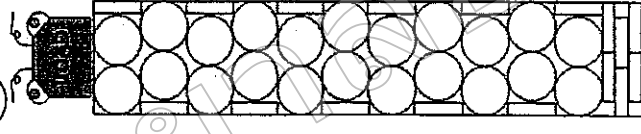
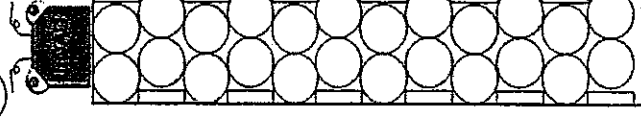
End If

Else
'    MsgBox ("sdasdfafdasfdasfasfdasdfasf")
'    ramain = 0
'End If
'Loop check Tire quantities of each size
'    Loop
'        Row = Row + 1
'Loop change Tire size
'    Loop

    Sheets("Load").Activate
End Sub

```

LOADING STUFFING MASTER

A		312	40HQ	45HQ
B		272	40HQ	45HQ
C		266	40HQ	45HQ
D		276	40HQ	45HQ
E		264	40HQ	45HQ
		294	40HQ	45HQ

ชนิดสินค้า

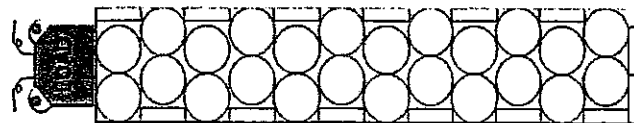
จำนวนบรรจุ

ขนาดตู้

LOADING STUFFING MASTER

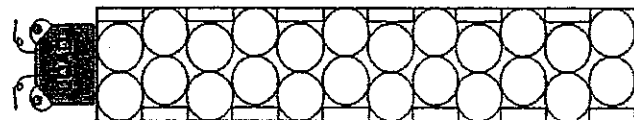
ชนิดสินค้า

F



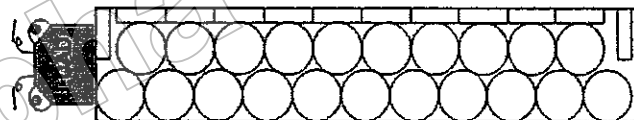
จำนวนรวม 268
จำนวน 40HQ

G

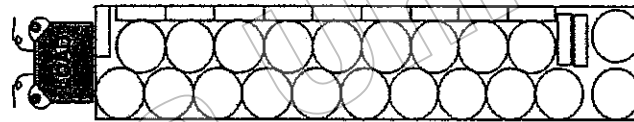


268
40HQ

H

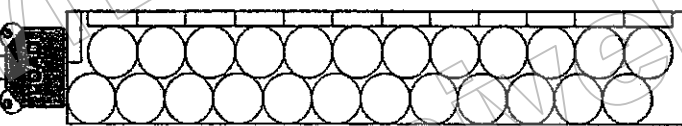


213
40HQ

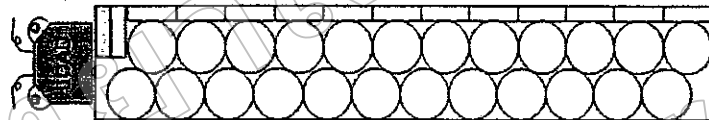


213
45HQ

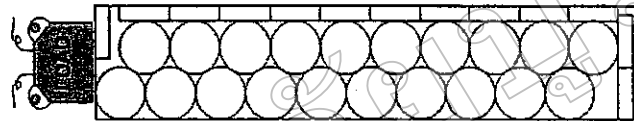
I



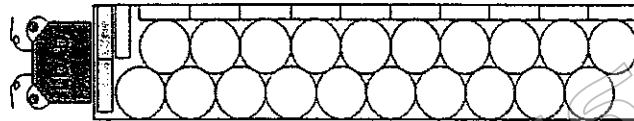
242
40HQ



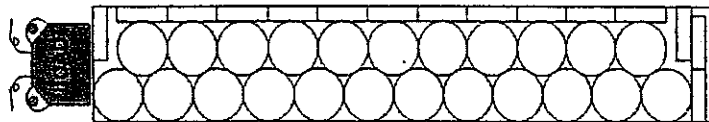
244
45HQ



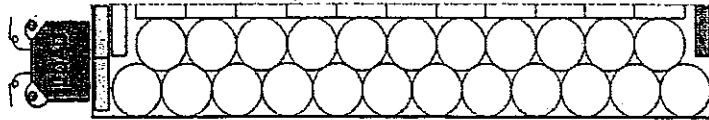
206
40HQ



206
40HQ



237
45HQ



236
45HQ

LOADING STUFFING MASTER

