



# WARRANTY BULLETIN

## Warranty Campaign



**CAUTION:** All involved customers must be notified, all involved units must be corrected as per instruction herein.

Campaign no.: 2015-0010

December 9, 2014

Subject: **600RS - Rebalancing the Stuffing Blocks of the Crankshaft**

No. **2015-8**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2015	MX Z X 600RS	BMFA, BMFB	All

## PROBLEM

The screws securing stuffing blocks on the crankshaft can break allowing the detachment of the blocks. This situation could cause severe collateral damages into the engine.

## SOLUTION

Using the procedure described in this bulletin, rebalance the stuffing blocks to limit the stress on retaining screws.

## REQUIRED PARTS

Parts should be ordered through regular channel.

DESCRIPTION	PART NUMBER	QTY
Cylinder Base Gasket	Select the appropriate thickness	1
	420 450 180 (0.5 mm)	
	420 450 181 (0.6 mm)	
	420 450 182 (0.7 mm)	
	420 450 183 (0.8 mm)	
Cylinder head rubber ring	420 931 590	2
Cylinder head O-ring	293 300 026	2
Piston circlip	420 845 106	4

## REQUIRED TOOLS

Parts should be ordered through regular channel.

DESCRIPTION	PART NUMBER	QTY
Crankshaft drilling guide*	529 036 358	1
HSS drill bit of 13 mm with a cutting angle of 60°	Purchase locally	1

\* The crankshaft drilling guide can be used for multiple repairs. Do not order a tool for each engine that must be repaired. BRP will credit a quantity if 1 crankshaft drilling guide per dealer.

**NOTE:** The crankshaft drilling guide will be available as of December 15<sup>th</sup> (next Monday).

# PROCEDURE

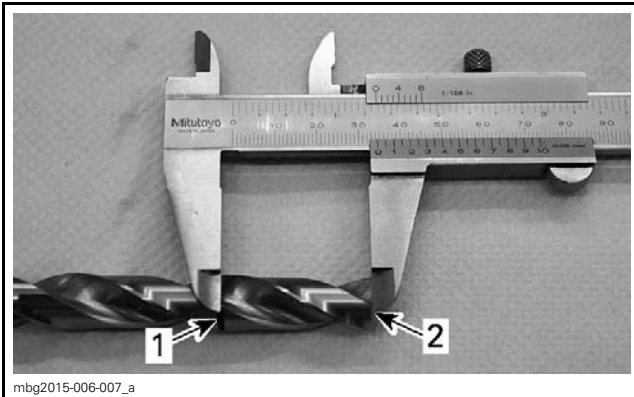
## Preparing the Vehicle

Remove cylinders and pistons using the procedure described in appropriate shop manual.

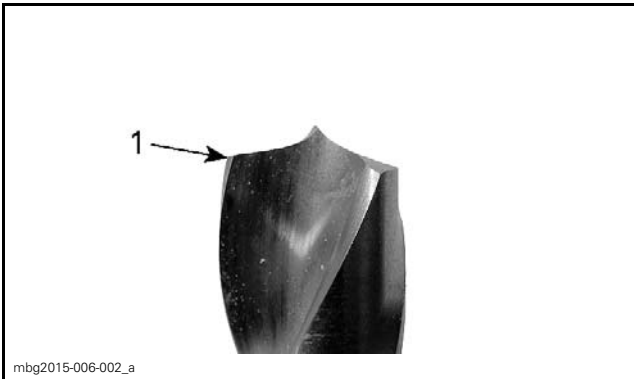
## Preparing the Drill Bit

Place a drill bit stop collar or many layers of tape at 34.5 mm (1.358 in) of the cutting edge of the drill bit.

**NOTICE** The combination of the drilling guide design and drill bit length will allow proper drill bit insertion during rebalancing procedure.



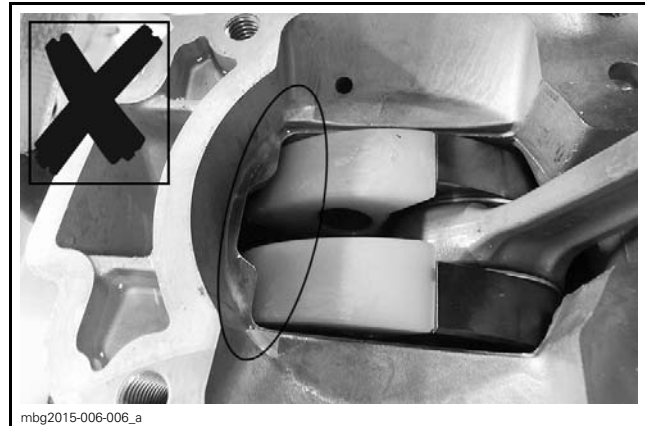
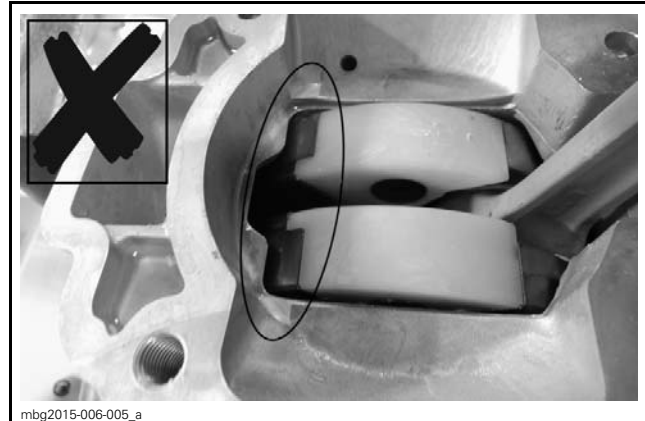
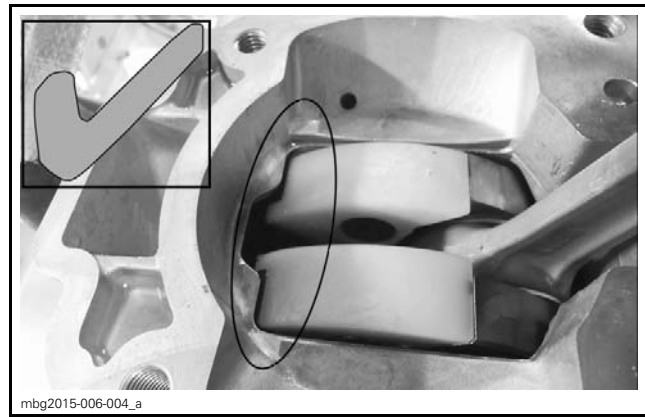
1. Trace a mark at 34.5 mm (1.358 in)
2. Cutting edge, NOT the end of drill bit



1. Cutting edge

## Preparing the Engine

1. Turn crankshaft until the edge of the stuffing blocks (MAG side) are aligned with the edge of the crankcase (exhaust side) as shown on the next illustrations.



2. Position the drilling guide.
  - 2.1 Place the drilling guide over the MAG stuffing blocks.
  - 2.2 Move the crankshaft slightly and push the drilling guide against the stuffing blocks.

**NOTICE** Never use a hammer to position the drilling guide.

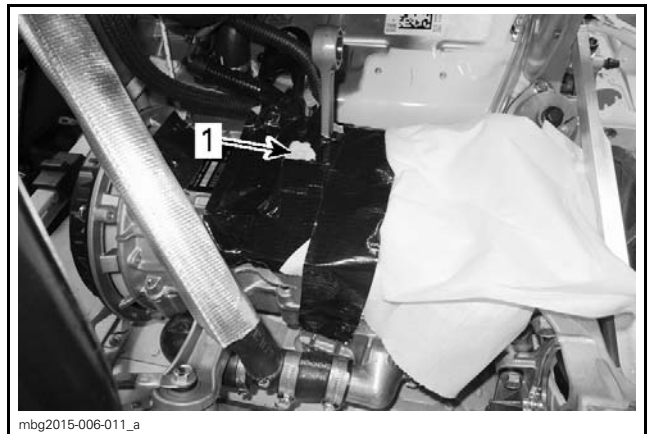
### IMPORTANT

When properly installed, the drilling guide will lock the crankshaft in the appropriate position. Always validate that crankshaft is well locked before drilling.



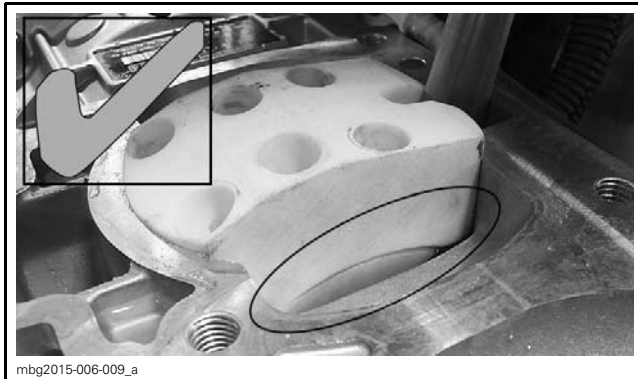
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1. Crankshaft drilling guide

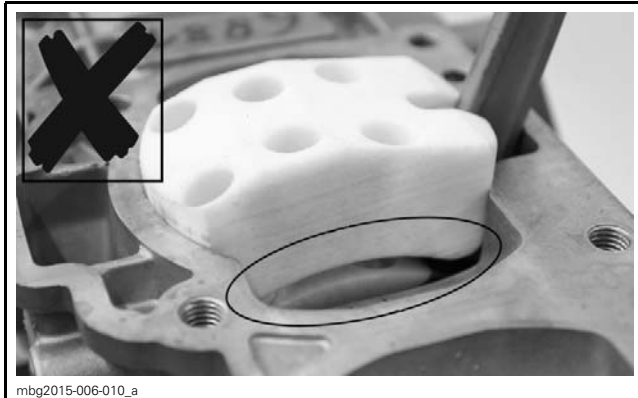


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1. RH rear hole of the drilling guide



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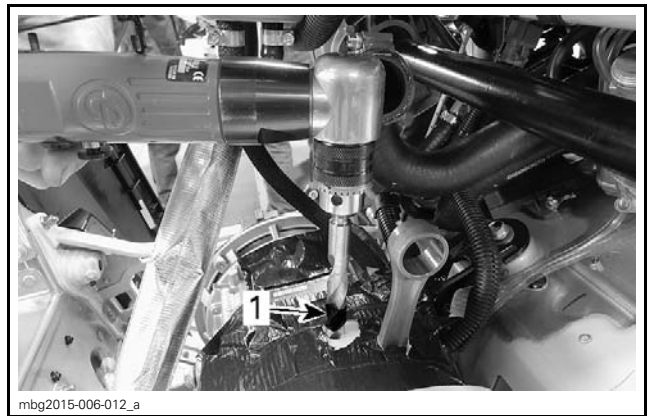


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3. Using fabric tape (duct tape), mask all opened areas (cylinder bore, slots and any gaps) from MAG side. Keep the RH rear hole of the drilling guide free of tape.
4. Cover the PTO side with a clean rag.

## Drilling the Holes

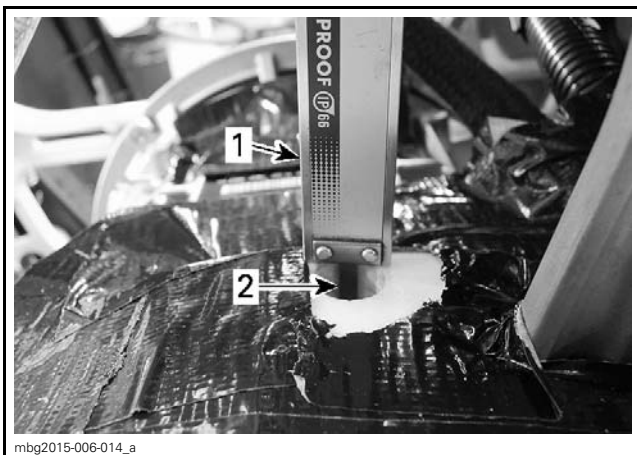
1. Using an angle drill and the 13 mm drill bit, drill into the RH rear hole of the drilling guide until the drill bit stopper or the tape leans slightly against the drilling guide. Do not apply pressure.



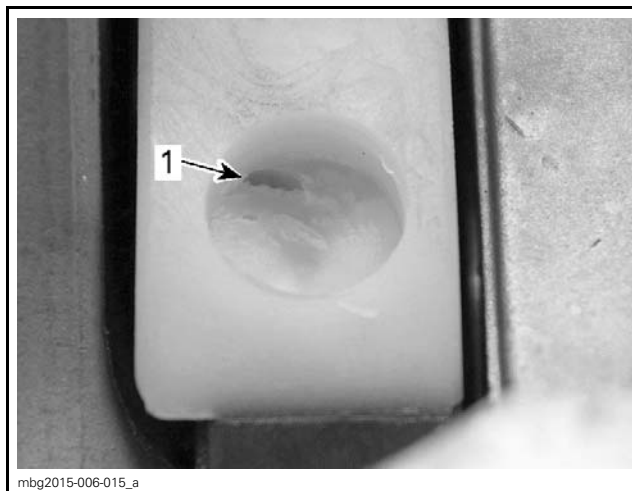
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1. *Tape*
2. Verify the depth of the drilled hole.
  - 2.1 Using a vacuum cleaner, remove the plastic chips located inside the hole and in the cylinder bore area.
  - 2.2 Blow compressed air to ensure no plastic debris remain in the hole.
  - 2.3 Insert the tip of a caliper inside hole.
  - 2.4 Lean the tip against the hole wall.
  - 2.5 Lower the tip until it touch the angle section.

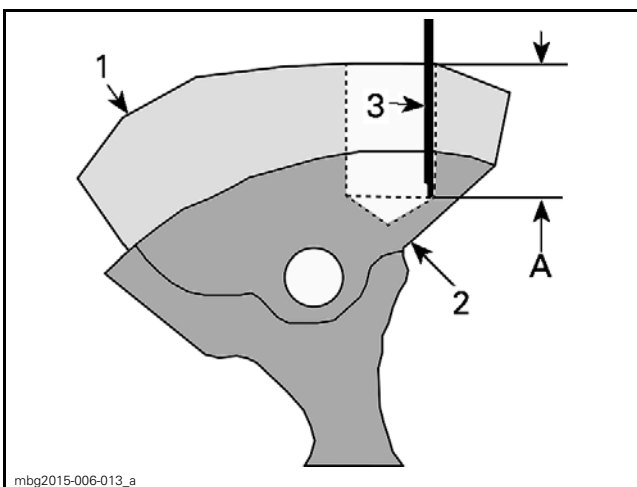
Depth of the drilled hole	34.5 mm (1.358 in)
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1. Caliper
2. Caliper tip



1. Cavity opened during drilling procedure



1. Drilling guide
  2. Stuffing block
  3. Caliper tip
- A. 34.5 mm (1.358 in)

If the required measurement is not reached, drill until specified depth is achieved.

3. Unmask the next hole while masking the previously drilled hole.
4. Repeat steps 1 to 3 until all holes (6 holes) are drilled and verified.
5. Repeat the procedure on the PTO side starting with *PREPARING THE ENGINE*.

## Verifying the Stuffing Blocks

Inspect the stuffing blocks for cracks or other damages.

**NOTE:** During drilling procedure, it is normal that some cavities in the stuffing blocks holes were opened. These cavities have no influence on the durability of the stuffing blocks.

If crack or damage is found, contact the BRP technical support as soon as possible to report the find. Log a technical case in BOSSWeb on the affected VIN. Specify "Rebalancing the Stuffing Blocks of the Crankshaft" and the bulletin # in the subject for reference, and attach a picture of the problem.

## Reassembling the Engine and the Vehicle

Reassemble the engine and the vehicle using the appropriate shop manual procedures.

## WARRANTY

Submit a warranty claim using the following information:

For claiming procedure, refer to the *DEALER/DISTRIBUTOR WARRANTY GUIDE*.

Click in the **Repair** check box while completing your claim on BOSSWeb.



CAMPAIGN NUMBER	2015-0010
Claim Type	Campaign claim
Action	Repair
Flat Rate Time	3.5 hour
Expiry Date	December 8, 2015