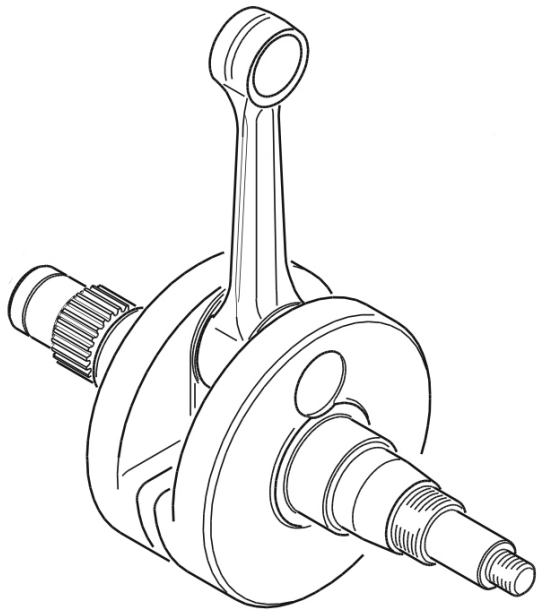
ROTAX®

BENÜTZERHANDBUCH
für
KURBELWELLEN-REPARATURVORRICHTUNG 276050

Für Rotax® 125 MAX Kart Kurbelwellen

USER MANUAL
for
CRANKSHAFT REPAIR JIG 276050

For Rotax® 125 MAX kart crankshaft



Teile-Nr./Part no.: 276050

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Vorwort

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Preface

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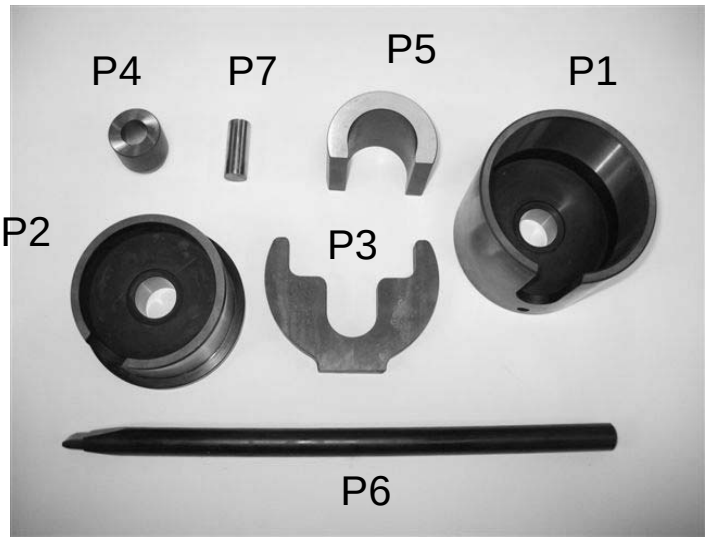
Content of crankshaft repair jig 276050



Item	P/N	Description	QTY
P1	276050_R01	Bottom part	1
P2	276050_R02	Upper part	1
P3	276050_R03	Pressure plate	1
P4	276050_R04	Sleeve	1
P5	276050_R05	Pressure ring	1
P6	276050_R06	Lever	1
P7	221122	Press pin	1

Parts to be installed "not content of crankshaft repair jig 276050"

Item	P/N	Description	QTY
21	295879	Crankshaft repair set	1
S1	295879	Washer	2
S2	295879	Con rod	1
S3	295879	Needle bearing	1
S4	295879	Crank pin	1

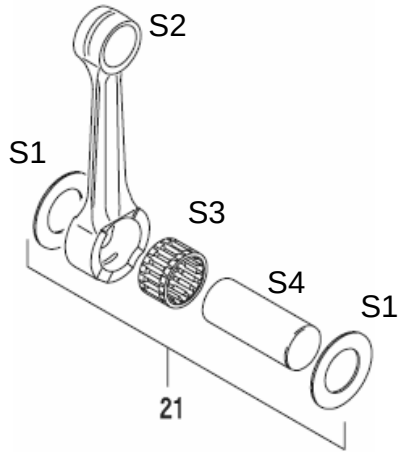


Figure 21

Additional equipment needed

- Press with minimum requirement printing pressure of 5 ton
- True-running device
- Dial gauge

Wiederkehrende Symbole

▲ **Warnung:** **Nichtbeachtung der Warnung kann zu Verletzungen oder zum Tod des Wartungsmechanikers oder anderer, dritter Personen führen.**

■ **Achtung:** Unter „Achtung „ sind besondere Vorsichtsmaßnahmen aufgeführt, die eingehalten werden müssen, um Beschädigungen an Vorrichtungen zu verhindern. Bei Nichtbeachtung könnte dies unter Umständen zu gesundheitlichen Schäden führen.

◆ **Hinweis:** Nützliche Information, um bestimmte Vorgänge einfacher zu gestalten bzw. zu erläutern.

➡ kennzeichnet einen Arbeitsschritt

✓ kennzeichnet einen Prüfschritt

Repeating symbols

▲ **Warning:** **Identifies an instruction, which if not followed may cause injury or endanger the life of the mechanic or third party.**

■ **Attention:** Denotes an instruction which if not followed may severely damage the equipment. Non-compliance might lead under certain conditions to health hazards.

◆ **Note:** Information useful for better execution and understanding of instructions.

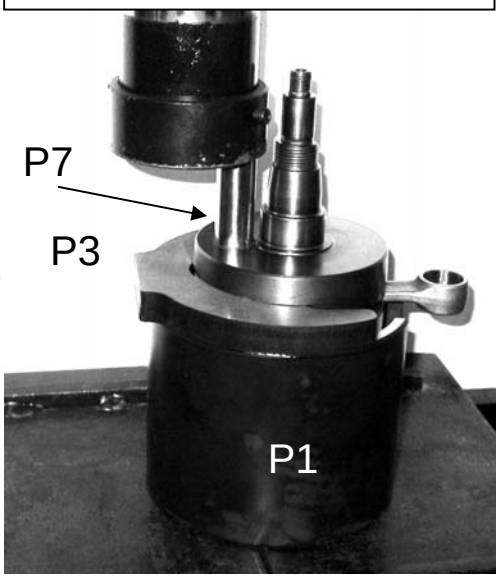
➡ Denotes a working operation

✓ Denotes a checking operation

Steps for using crankshaft-repair jig

1. Disassemble the crankshaft

D1



▲ **Warning: Whenever working with equipment like a press take special precaution and follow the instruction of the manufacturer of the equipment used.**

◆ **Note:** Clean the crankshaft before disassembling thoroughly with brake cleaner (free of grease)

➡ Install pressure plate (P3) between the crankshaft halves.

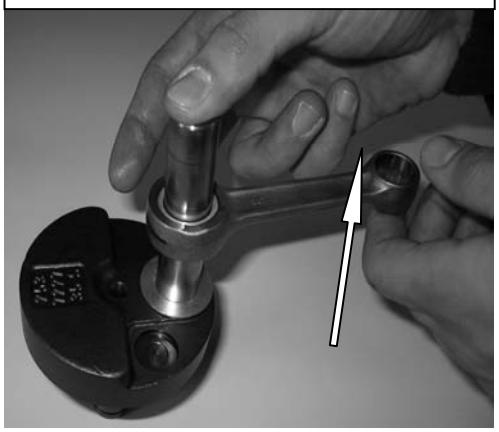
➡ Place the crankshaft together with the pressure plate on the bottom part (P1) and verify that the crank stub is above the center bore of the bottom part (P1).

■ **Attention:** In case the crank stub is not center with the middle bore of bottom part (P1) you can cause a defect on the crank stub and on the bottom part (P1).

➡ Position the press pin (P7) on the crank pin and press the crankshaft apart,

◆ **Note:** You have to hold the crankshaft on the connecting rod in a horizontal position. (see D1)

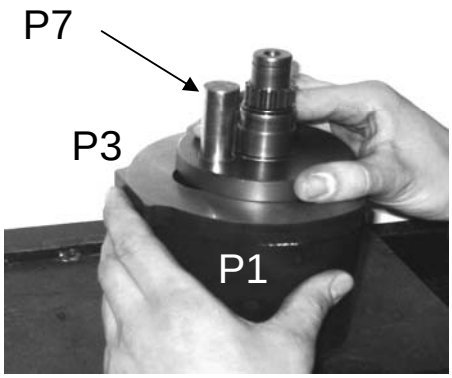
D2



◆ **Note:** Take a spare crank pin and slide the old con rod with needle bearing and washers on the crank pin. This is only necessary if you would like to keep the old parts (see D2)

➡ Now take the crankshaft halve (gearbox side) and repeat the pressing procedure as described above. (see D3)

D3



2. Assembling the crankshaft

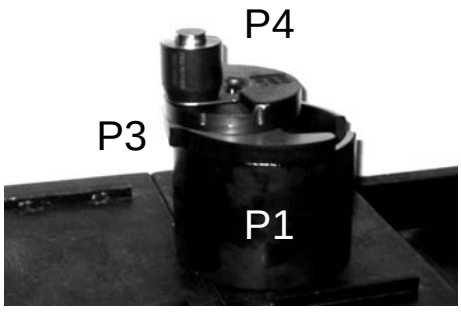
◆ **Note:** Clean the bore for the crank pin in the crankshaft halve (gearbox-side) with brake cleaner (free of grease).

➡ Apply little bit of Loctite 648 (899788) on the inside of the crank pin bore.

◆ **Note:** remove excessive Loctite, otherwise damage to related parts could occur.

➡ Install the new crank pin (S4) into the sleeve (P4) and position those two items on the crankshaft bore (see D4)

D4

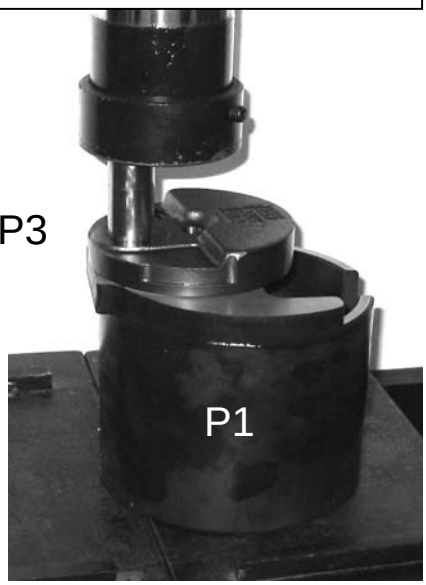


◆ **Note:** Replace the new crank pin from the crankshaft repair set with a spare crank pin, just slide the new con rod with needle bearing on the spare crank pin (see figure D2).

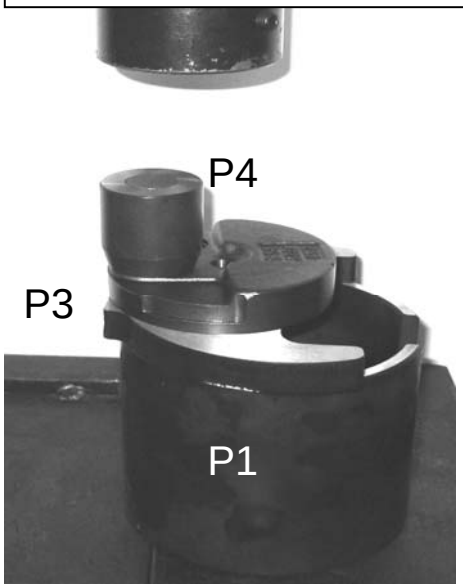
.

➡ Put the crankshaft halve on the pressure plate (P3) and press the new crankpin into the crankshaft until it stops (see D5), then remove sleeve (P4) and press the crankpin all the way in. (see D6)

D6



D5



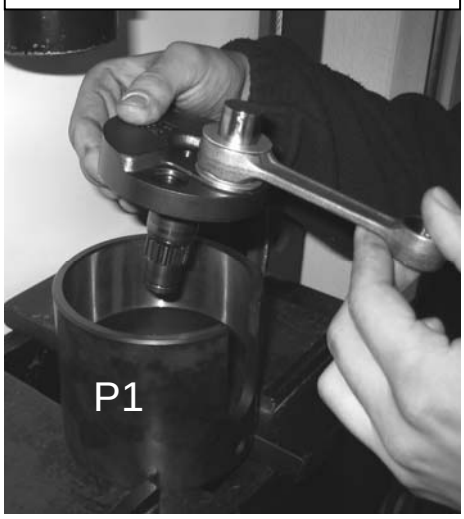
➡ Slide the new con rod from the spare crank pin onto the installed crankpin, (see D7) follow the order of parts to be installed as shown in figure 21.

◆ **Note:** It is very important that all parts be absolutely clean, make sure not to loose a needle from the bearing

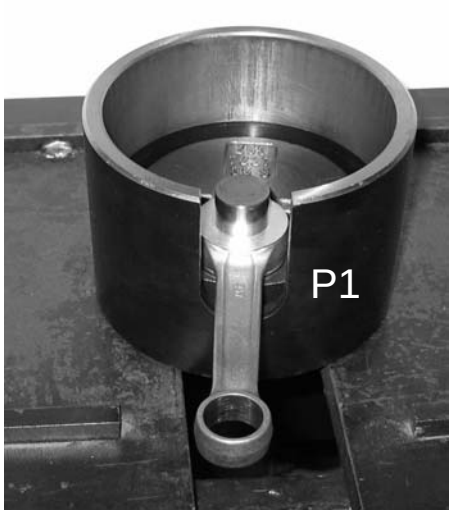
D7

➡ Slide the crankshaft halve (gearbox side) into the bottom part (P1). (see D8 and D9)

D8



D9



◆ **Note:** Clean the crankshaft-bore (coupling-side) with brake cleaner (free of grease)

◆ **Note:** Lubricate the bore slightly with Loctite 648.

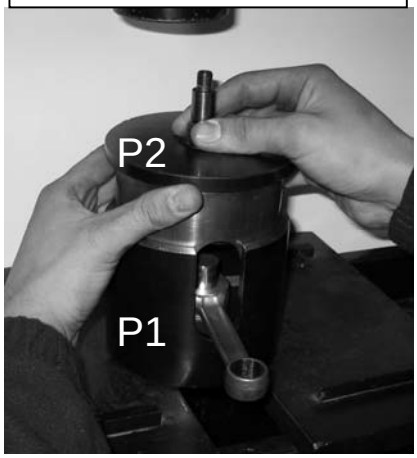
◆ **Note:** remove excessive Loctite, otherwise damage to related parts could occur.

➡ Slide the crankshaft halve (coupling-side) into the upper part (P2). (see D10)

D10

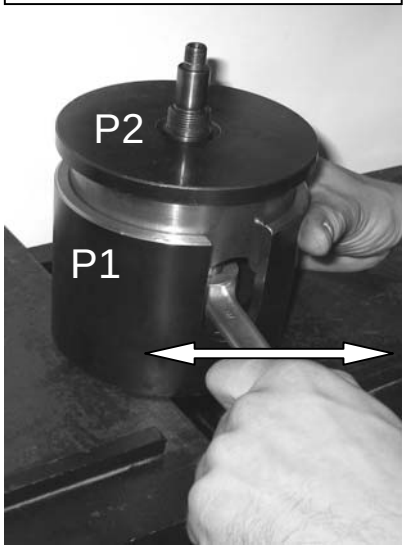
➡ Hold the crankshaft halve as shown on picture (D11) slide the upper part (P2) into the bottom part (P1). (see D11)

D11



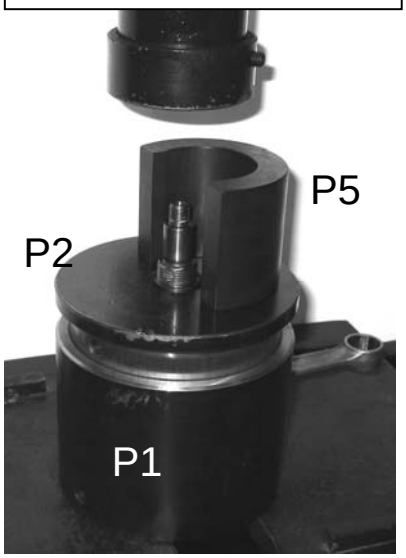
◆ **Note:** Move the con rod from left to right in order to align the crank pin in the crankshaft-bore. (see D12)

D12



➡ Position the pressure ring (P5) on the upper part (P2) above the crank pin area and press the crankshaft halves together. (see D13)

D13



3. Truing the crankshaft

✓ Verify the specified dimension M09 (see fig. 30)

◆ **Note:** M09 = 48.95 – 49.05 mm

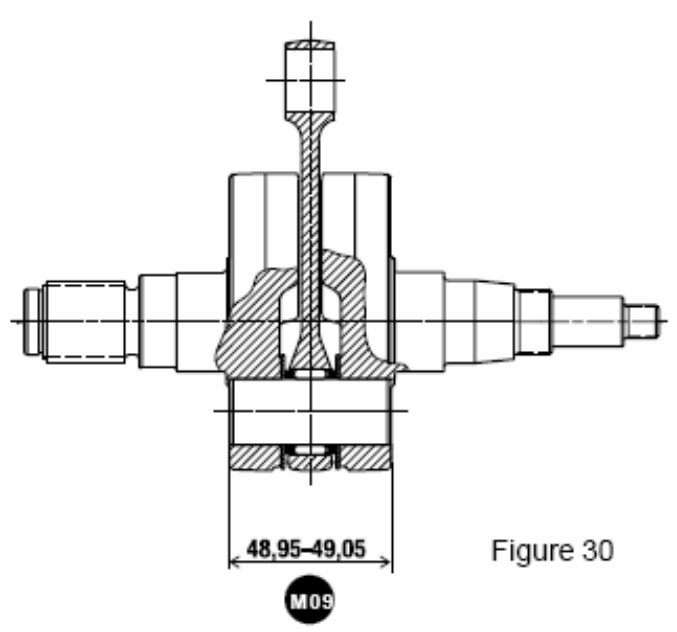
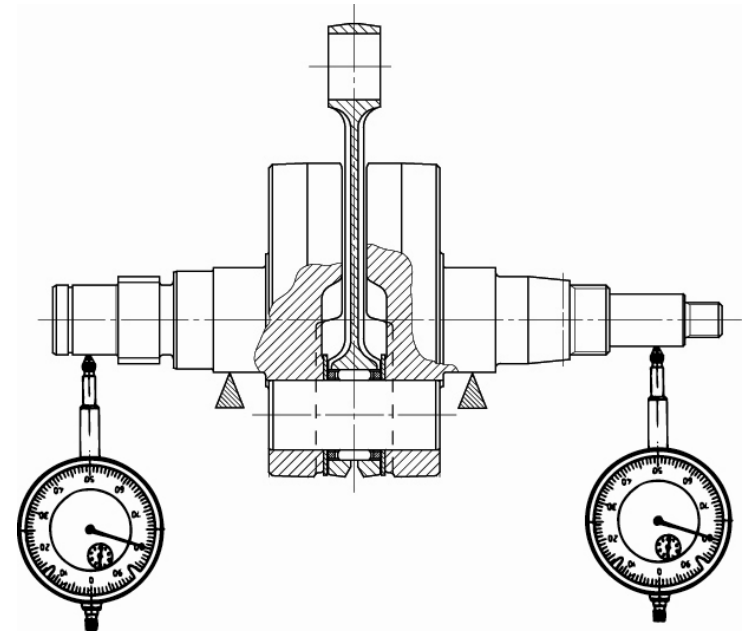


Figure 30

✓ Check the out-of-roundness on the crankshaft M07 (see fig.29)

◆ **Note:** M07 = +/- 0.03mm



◆ **Note:** If the out-of-roundness on the crankshaft is not according to the specified limit the crankshaft must be realigned.

◆ **Note:** To align the crankshaft the two crankshaft halves may be squeezed by using a bench vise or spread with the lever (P6) accordingly on the required area. (see D14)

◆ **Note:** Crankshaft can be corrected by blows on the outer diameter of the crankshaft halves with a soft hammer.

D14