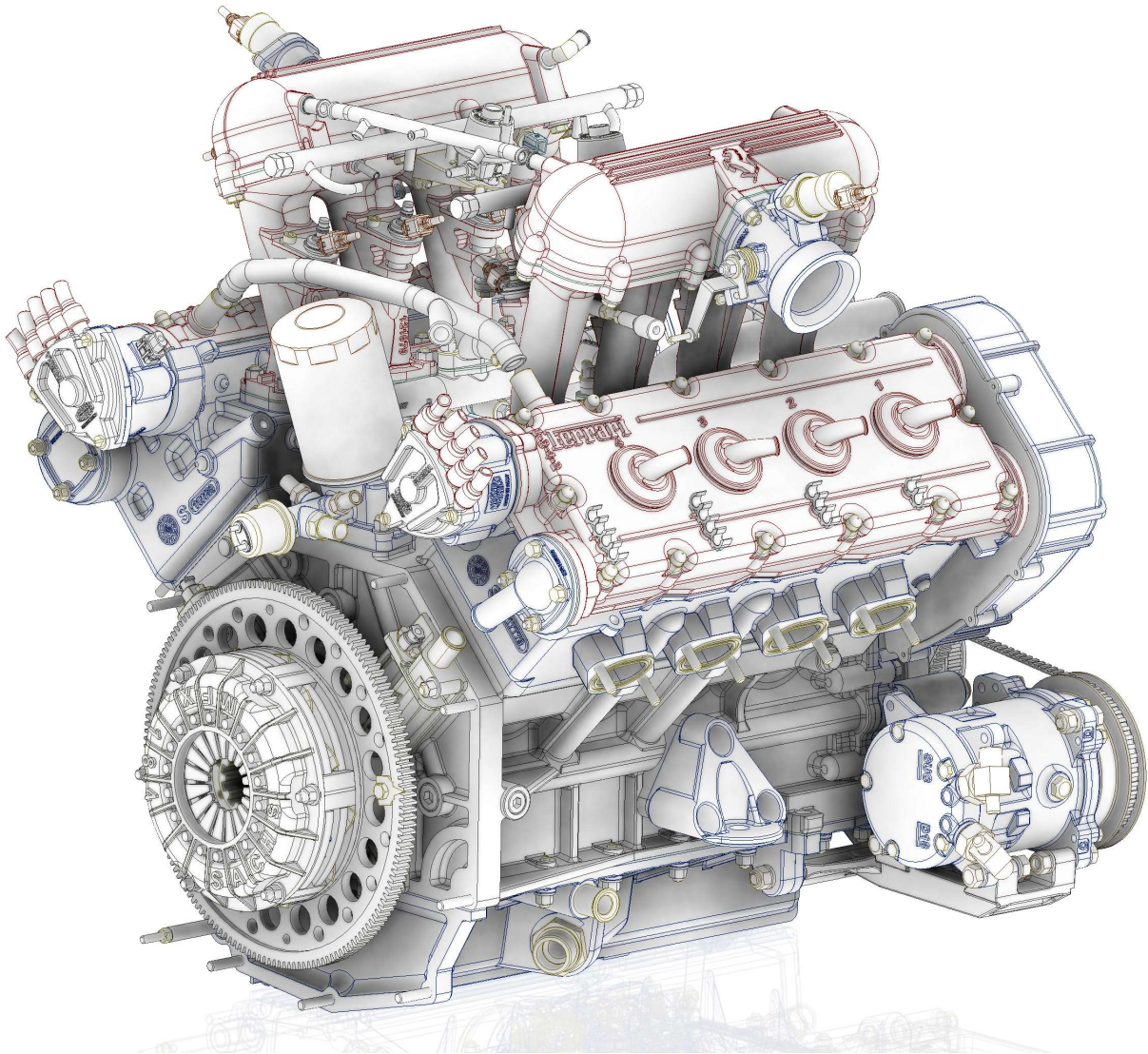


288GT0

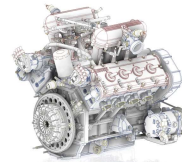
engine kit (scale 1/4)



**static engine model kit, non functional.
For display purpose only**

1

parts manual



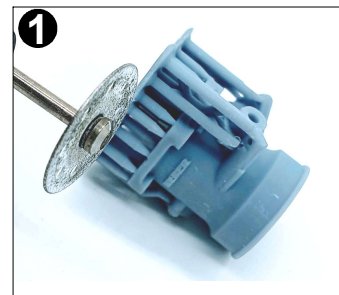
Important Info:

Preparation of 3d printed resin parts

The 3d printed parts are made of resin and handle different than other known casted resin parts. These printed parts are brittle compared to casted resin parts. Therefore, be **VERY** careful when enlarging holes or trim areas to fit. Parts tend to break very easy. This is especially for the small parts with thin walls. More information in the following workflow steps. Due to the making process of the printing process there is some trimming, cleaning, puttying and sanding process required.

1- coarse trimming

Most printed parts come with a stabilization structure that support the part during the printing process. First step is to remove this structure carefully with a motor tool. Do not break of the structure as you can damage the part itself. Use a new (diamond coated) cutting blade and **do not** use force to cut the structure.



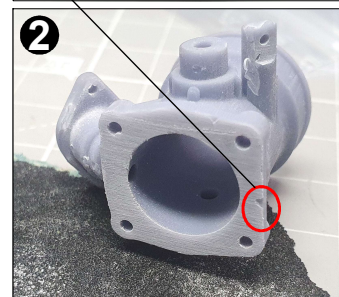
2- smooth sanding of support marks

Once the support structure has been roughly removed you need to sand the remaining pins with sandpaper. I recommend to work with grid 400 and 600. In some areas it could happen, that pins will leave small dimples. Here it is advisable to **putty** the dimples and sand smooth after they are dry.

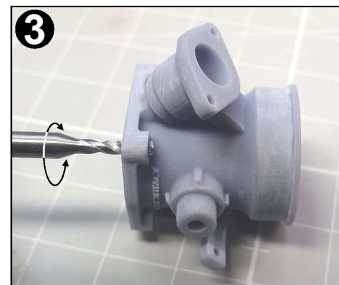
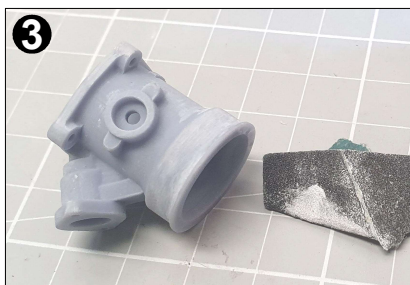
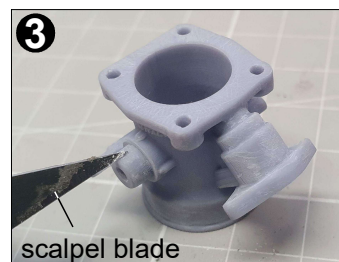


3- additional preparation

Large Parts could show some bending where a flat surface is required (e.g. cylinder-head to engine block or oil-pan to block). These surfaces should be sanded flat using a sandpaper layed on a flat surface (e.g. table) and moving the part back and force until all is straight. Due to the making process of the parts there could be some visible printlines on some parts (called layer lines). Very fine lines will disappear once the parts get painted especially when using filler spray as a base coat. On some areas it could be necessary to sand the lines smooth or (where hard to reach) use a cutter knife and scrap the lines smooth. A thin layer of primer to the parts will show if more cleaning or sanding is required.



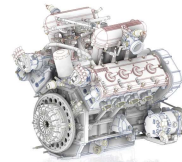
Most mounting holes on the printed parts are preprinted in the correct size. In some cases it might be necessary to enlarge the holes to the correct required size to fit the corresponding bolts. Be very careful when redrilling these holes and use very little force. **Only use the next larger drill size, step by step** (e.g.: if the hole size is 1,6mm and you want 2,0mm go step by step- 1,7mm, 1,8mm, ...). Do not use drills that are several sizes larger than the actual hole as the resin will probably break. Remember the printed resin is more brittle than a casted resin. It is recommended to use a handdrill and not a motordriven drilling tool. Do a dry fit with all surrounding parts and bolts first before final painting.



Fine layer lines or scratches will be eliminated using automotive filler spray. When no malfunctions are visible, part is ready to get final color. Otherwise repeat cleaning process.



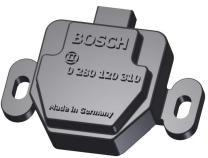







Use sandpaper (400grid) to smooth visible printlines. Spray thin primer coat to better see possible print lines and imperfections. Repeat sanding if required.

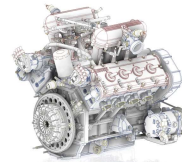
Enlarge holes to needed size (step by step - use hand drill. Do not use much force!!!)



Parts List

Resin - 3d printed parts - **R** shown size not to scale

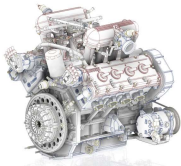
R1  No. parts: 2 Building step: 3	R2  No. parts: 1 Building step: 3	R3  No. parts: 1 Building step: 3	R4  No. parts: 2 Building step: 3	R5  No. parts: 1 Building step: 3	R6  No. parts: 1 Building step: 3
R7  No. parts: 1 Building step: 3	R8  No. parts: 2 Building step: 3	R9  No. parts: 1 Building step: 3	R10  No. parts: 1 Building step: 3	R11  No. parts: 1 Building step: 3	R12  No. parts: 2 Building step: 3
R13  No. parts: 1 Building step: 1	R14  No. parts: 11 Building step: 1 / 2	R15  No. parts: 1 Building step: 1	R16  No. parts: 1 Building step: 1	R17  No. parts: 1 Building step: 1	R18  No. parts: 2 Building step: 1 / 2
R19  No. parts: 8 Building step: 1 / 2	R20  No. parts: 1 Building step: 3	R21  No. parts: 3 Building step: 1 / 2 / 7	R22  No. parts: 2 Building step: 1 / 2	R23  No. parts: 2 Building step: 1 / 2	R24  No. parts: 2 Building step: 1 / 2
R25  No. parts: 2 Building step: 9	R26  No. parts: 1 Building step: 9	R27  No. parts: 1 Building step: 9	R28  No. parts: 1 Building step: 9	R29  No. parts: 1 Building step: 9	R30  No. parts: 1 Building step: 9
R31  No. parts: 1 Building step: 9	R32  No. parts: 1 Building step: 9	R33  No. parts: 1 Building step: 9	R34  No. parts: 1 Building step: 9	R35  No. parts: 1 Building step: 9	R36  No. parts: 1 Building step: 9
R37  No. parts: 1 Building step: 2	R38  No. parts: 1 Building step: 3	R39  No. parts: 2 Building step: 3	R40  No. parts: 2 Building step: 3	R41  No. parts: 1 Building step: 3	R42  No. parts: 1 Building step: 8



Parts List


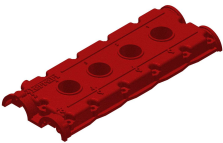

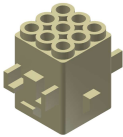


















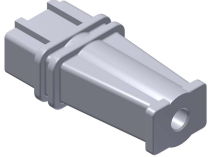



Resin - 3d printed parts - **R** shown size not to scale

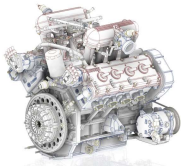
R43 No. parts: 1 Building step: 8	R44 No. parts: 1 Building step: 8	R45 No. parts: 1 Building step: 8	R46 No. parts: 1 Building step: 10	R47 No. parts: 1 Building step: 10	R48 No. parts: 1 Building step: 10
R49 No. parts: 1 Building step: 10	R50 No. parts: 1 Building step: 10	R51 No. parts: 1 Building step: 6	R52 No. parts: 1 Building step: 6	R53 No. parts: 1 Building step: 6	R54 No. parts: 1 Building step: 6
R55 No. parts: 1 Building step: 6	R56 No. parts: 1 Building step: 6	R57 No. parts: 4 Building step: 7	R58 No. parts: 1 Building step: 7	R59 No. parts: 1 Building step: 7	R60 No. parts: 4 Building step: 12
R61 No. parts: 4 Building step: 12	R62 No. parts: 2 Building step: 11	R63 No. parts: 1 Building step: 11	R64 No. parts: 2 Building step: 11	R65 No. parts: 1 Building step: 11	R66 No. parts: 1 Building step: 11
R67 No. parts: 1 Building step: 4	R68 No. parts: 12 Building step: 4 / 5	R69 No. parts: 8 Building step: 4 / 5	R70 No. parts: 4 Building step: 4 / 5	R71 No. parts: 2 Building step: 4 / 5	R72 No. parts: 2 Building step: 4 / 5
R73 No. parts: 1 Building step: 4	R74 No. parts: 2 Building step: 4 / 5	R75 No. parts: 1 Building step: 4	R76 No. parts: 1 Building step: 4	R77 No. parts: 2 Building step: 4 / 5	R78 No. parts: 2 Building step: 4 / 5
R79 No. parts: 2 Building step: 4	R80 No. parts: 2 Building step: 4 / 5	R81 No. parts: 2 Building step: 4 / 5	R82 No. parts: 2 Building step: 4 / 5	R83 No. parts: 1 Building step: 5	R84 No. parts: 1 Building step: 5



Parts List

Resin - 3d printed parts - **R** shown size not to scale

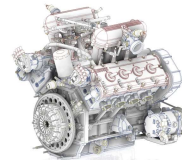
<p>R85</p>  <p>No. parts: 1 Building step: 5</p>	<p>R86</p>  <p>No. parts: 1 Building step: 5</p>	<p>R87</p>  <p>No. parts: 2 Building step: 5</p>	<p>R88</p>  <p>No. parts: 1 Building step:</p>	<p>R89</p>  <p>No. parts: 1 Building step: 13</p>	<p>R90</p>  <p>No. parts: 1 Building step: 13</p>
<p>R91</p>  <p>No. parts: 1 Building step: 13</p>	<p>R92</p>  <p>No. parts: 1 Building step: 13</p>	<p>R93</p>  <p>No. parts: 1 Building step: 13</p>	<p>R94</p>  <p>No. parts: 1 Building step: 13</p>	<p>R95 not used</p>  <p>No. parts: 1 Building step: 3</p>	<p>R96</p>  <p>No. parts: 1 Building step: 13</p>
<p>R97</p>  <p>No. parts: 1 Building step: 13</p>	<p>R98</p>  <p>No. parts: 1 Building step: 13</p>	<p>R99</p>  <p>No. parts: 1 Building step: 13</p>	<p>R100</p>  <p>No. parts: 1 Building step: 13</p>	<p>R101</p>  <p>No. parts: 2 Building step: 13</p>	<p>R102</p>  <p>No. parts: 3 Building step: 13</p>
<p>R103</p>  <p>No. parts: 1 Building step: 3</p>	<p>R104</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>R105</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>R106</p>  <p>No. parts: 2 Building step: 13</p>	<p>R107</p>  <p>No. parts: 2 Building step: 13</p>	<p>R108 - Tool 18mm</p>  <p>No. parts: 1 Building step: 1 / 2</p>
<p>R109 - Tool 9mm</p>  <p>No. parts: 1 Building step: 6</p>	<p>R110 - Tool 8mm</p>  <p>No. parts: 1 Building step: 13</p>				



Parts List




















































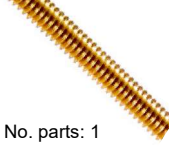


machined parts - **M** shown size not to scale

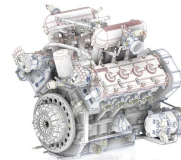
<p>M1</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>M2</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>M3</p>  <p>No. parts: 2 Building step: 4 / 5</p>	<p>M4</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>M5</p>  <p>No. parts: 2 Building step: 4 / 5</p>	<p>M6</p>  <p>No. parts: 1 Building step: 1</p>
<p>M7</p>  <p>No. parts: 1 Building step: 1</p>	<p>M8</p>  <p>No. parts: 3 Building step: 1 / 2 / 7</p>	<p>M9</p>  <p>No. parts: 2 Building step: 1 / 2</p>	<p>M10</p>  <p>No. parts: 2 Building step: 3 / 8</p>	<p>M11</p>  <p>No. parts: 1 Building step: 3</p>	<p>M12</p>  <p>No. parts: 1 Building step: 3</p>
<p>M13</p>  <p>No. parts: 4 Building step: 4 / 5</p>	<p>M14</p>  <p>No. parts: 1 Building step: 3</p>	<p>M15</p>  <p>No. parts: 2 Building step: 3</p>	<p>M16</p>  <p>No. parts: 1 Building step: 8</p>	<p>M17</p>  <p>No. parts: 1 Building step: 8</p>	<p>M18</p>  <p>No. parts: 2 Building step: 8</p>
<p>M19</p>  <p>No. parts: 2 Building step: 10</p>	<p>M20</p>  <p>No. parts: 2 Building step: 10</p>	<p>M21</p>  <p>No. parts: 1 Building step: 9</p>	<p>M22</p>  <p>No. parts: 1 Building step: 9</p>	<p>M23</p>  <p>No. parts: 1 Building step: 9</p>	<p>M24</p>  <p>No. parts: 1 Building step: 6</p>
<p>M25</p>  <p>No. parts: 1 Building step: 6</p>	<p>M26</p>  <p>No. parts: 1 Building step: 7</p>	<p>M27</p>  <p>No. parts: 1 Building step: 7</p>	<p>M28</p>  <p>No. parts: 2 Building step: 12</p>		



Parts List

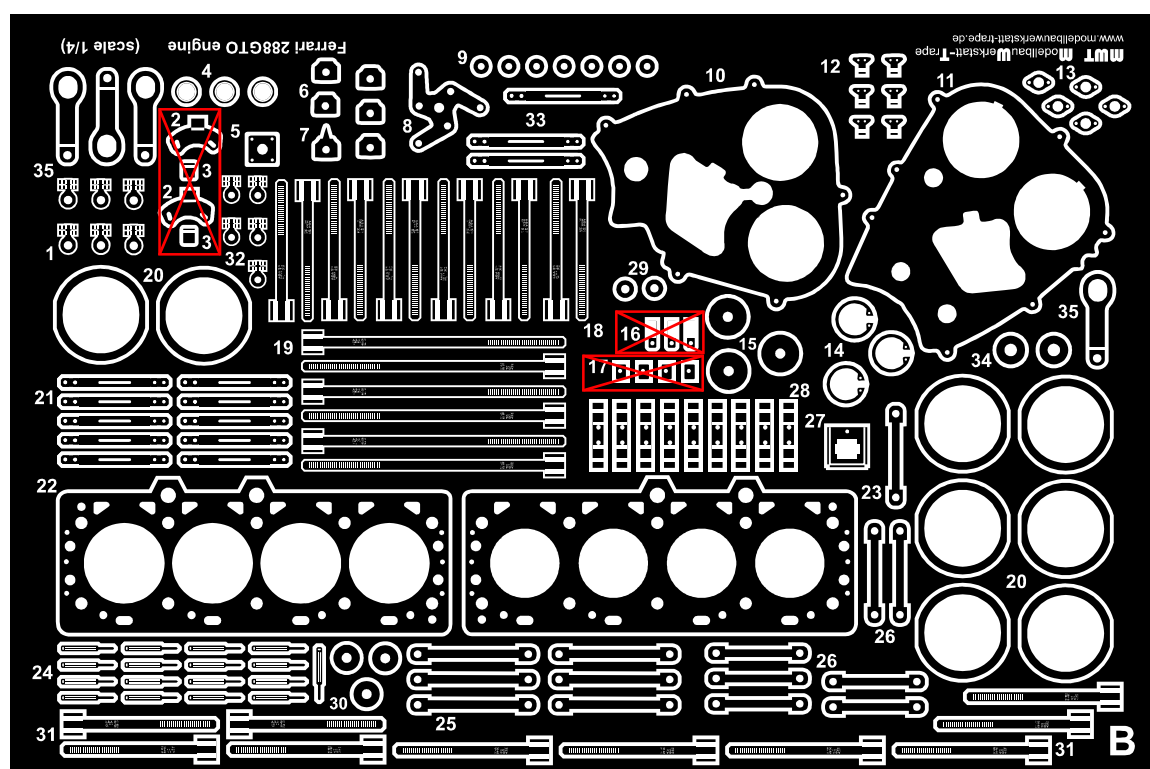
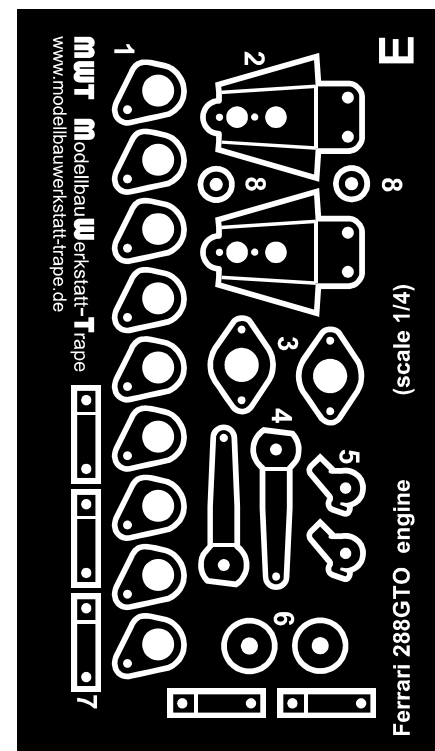
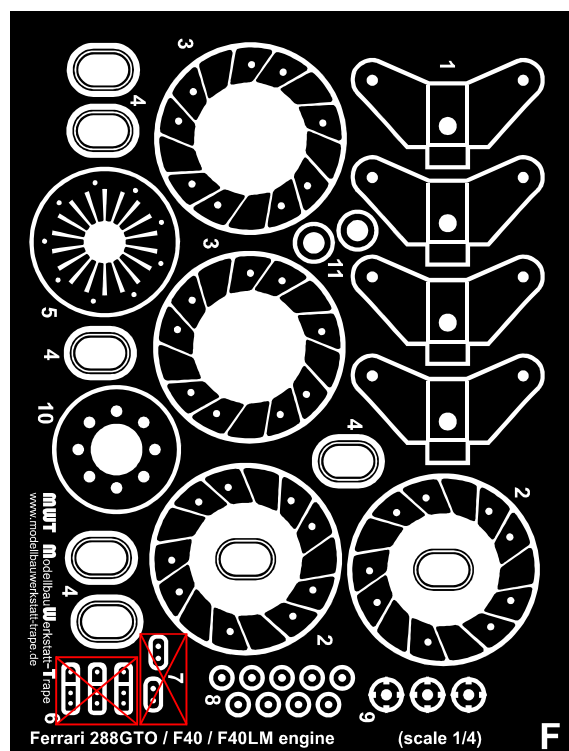
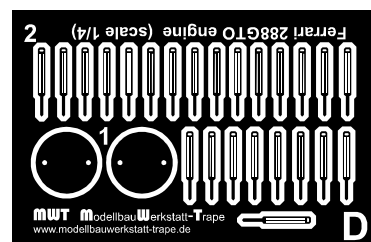
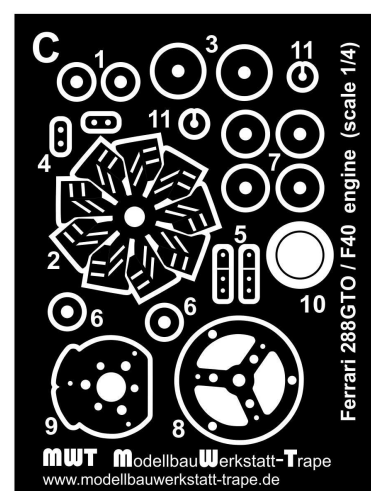
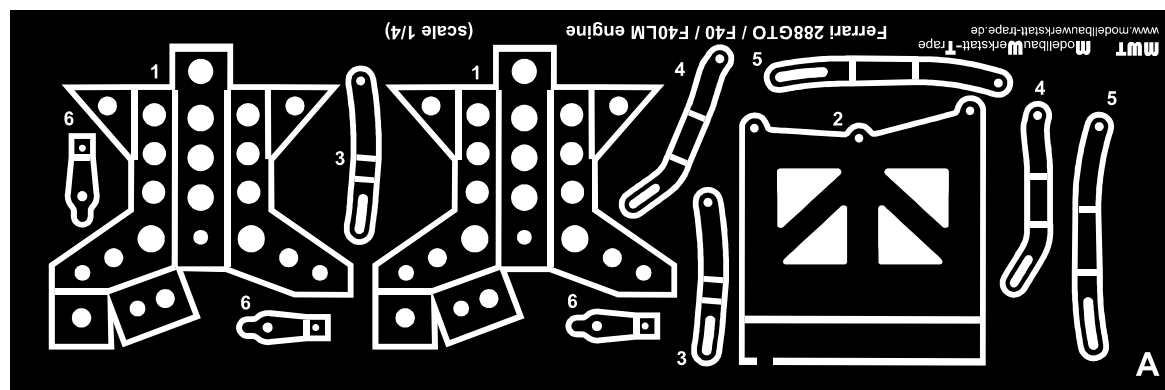
hardware parts - **H**
shown size not to scale

H1  No. parts: 4 brass rivet M1,6 x 12	H2  No. parts: 23 steel bolt M1,6 x 8	H3  No. parts: 16 steel bolt 1,6 x 12	H4  No. parts: 24 steel bolt M2,0 x 6	H5  No. parts: 1 steel bolt M2,0 x 8	H6  No. parts: 8 steel bolt M2,0 x 10	H7  No. parts: 8 steel pin M2,0 x 15
H8  No. parts: 1 steel bolt M2,5 x 10	H9  No. parts: 5 steel bolt M3,0 x 10	H10  No. parts: 1 steel bolt M4,0 x 15	H11  No. parts: 48 steel nut M1,6	H12  No. parts: 122 steel nut M2,0	H13  No. parts: 8 steel nut M2,5	H14  No. parts: 7 steel nut M3,0
H15  No. parts: 28 cap nut M2,0	H16  No. parts: 6 brass bolt M1,6 x 6	H17  No. parts: 3 brass bolt M2,5 x 8	H18  No. parts: 12 brass bolt M2,5 x 12	H19  No. parts: 4 brass bolt M1,0 x 5	H20  No. parts: 2 brass nut M2,5	H21  No. parts: 8 Niro bolt M1,2 x 6
H22  No. parts: 13 steel bolt M1,6 x 6	H23  No. parts: 30 steel washer 1,3mm	H24  No. parts: 20 steel washer 1,7mm	H25  No. parts: 178 steel washer 2,2mm	H26  No. parts: 24 steel washer 2,7mm	H27  No. parts: 5 steel washer 3,2mm	H28  No. parts: 2 brass pin M1,0 x 10
H29  No. parts: 4 steel nut M2,5 (thin)	H30  No. parts: 85 steel pin M2,0 x 16	H31  No. parts: 77 steelpin M2,0 x 20	H32  No. parts: 3 alu rivet 1 x 4mm	H33  No. parts: 4 alu rivet 1 x 2mm	H34  No. parts: 3 steel screw M1,6 x 6	H35  No. parts: 22 niro screw M1,0 x 3
H36  No. parts: 12 niro screw M1,2 x 6	H37  No. parts: 2 steel allen M2,0 x 5	H38  No. parts: 1 steel allen M2,5 x 6	H39  No. parts: 3 steel allen M3,0 x 6	H40  No. parts: 1 steel allen M3,0 x 12	H41  No. parts: 3 steel allen M4,0 x 6	H42  No. parts: 2 steel allen M2,0 x 10
H43  No. parts: 6 steel rod M2,5	H44  No. parts: 1 steel rod M3,0	H45  No. parts: 8 niro allen M1,4 x 5	H46  No. parts: 6 steel allen M2,0 x 20	H47  No. parts: 1 brass rod M2,0	H48  No. parts: 4 steel allen M4,0x16	H49  No. parts: 4 steel nut M4
H50  No. parts: 8 steel washer M4,3 x 9	H51  No. parts: 4 steel allen M2,5 x 12	H52  No. parts: 1 brass rod M1,6	H53  No. parts: 4 rivet - M2,0 x 10	H54  No. parts: 1 washer - 4,3 x 12		



Parts List

etched parts - **E** (shown size not to scale)



sheets:

- A - 0,8mm brass
- B - 0,3mm nickle silver
- C - 0,4mm brass
- D - 0,3mm brass
- E - 0,4mm nickle silver
- F - 0,4mm nickle silver
- G - 0,5mm nickle silver

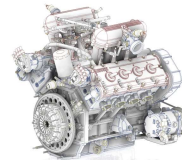
shown sheet layouts
not to scale!!

e.g. sheet **B** is XXL
(200x300mm)

part designation in manual:

E (for etch parts)
followed by the sheet letter
and number on sheet.
eg.: **E-F3**
(etched part no.3 on sheet F)

- parts not used



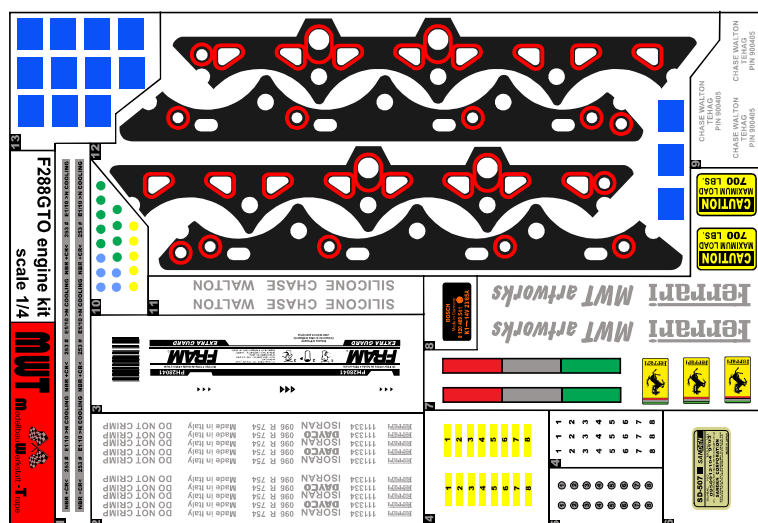
Parts List

misellaneous parts - Z

Z1 (red wire 1,8mm) No. parts: 2,0m Building step: 4 / 5	Z2 (shrink-tube yellow) No. parts: 0,1m Building step: 4 / 5	Z3 (alu wire 2,0mm) No. parts: 0,2m Building step: 1 / 2	Z4 (silver wire 0,6mm) No. parts: 0,5m Building step: 1 / 2 / 7	Z5 (steel tube 1,2mm) No. parts: 3 Building step: 1 / 2 / 9	Z6 (steel tube 1,6mm) No. parts: 5 Building step: 1 / 2
Z7 (black wire 0,8mm) No. parts: 0,9m Building step:	Z8 (alu tube 3,0mm) No. parts: 1 Building step: 3	Z9 (schrink tube 6mm) No. parts: 0,3m Building step:	Z10 (shrink tube 3,2mm) No. parts: 1,2m Building step:	Z11 (shrink tube 1,6mm) No. parts: 0,5m Building step:	Z12 (color wire 0,6mm) No. parts: 7x 0,15m Building step:
Z13 (black wire 1,0mm) No. parts: 1,2m Building step:	Z14 (soft solder 1,2mm) No. parts: 0,4m Building step: 3	Z15 (soft solder 1,0mm) No. parts: 0,1m Building step:	Z16 (soft solder 0,8mm) No. parts: 1,5m Building step: 13	Z17 (white wire 1,1mm) No. parts: 0,4m Building step: 3	Z18 (wire black 2,0mm) No. parts: 0,15m Building step:
Z19 (brass square tube) No. parts: 2 Building step: 12	Z20 (brass square tube) No. parts: 2 Building step: 12	Z21 (alu tube 2,0mm) No. parts: 2 Building step: 7	Z22 (shrink tube 10mm) No. parts: 1 Building step: 13	Z23 (shrink tube 20mm) No. parts: 1 Building step: 7	Z24 (shrink tube 30mm) No. parts: 1 Building step: 1 / 2
					Z25 (metal ring plate) No. parts: 1 Building step: 3

Parts List

decals - D shown size not to scale



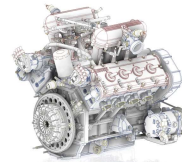
used in building step:

- | | |
|--------------------------------------|--------------|
| 1 - Hose markings (cut to size) | - 13 |
| 2 - drive belt decals | - 13 |
| 3 - oil filter | - 8 |
| 4 - ignition wire labels | - 4 5 |
| 5 - distributor cap labels | - 4 5 |
| 6 - climate compressor | - 10 |
| 7 - engine stand | - 12 |
| 8 - alternator | - 9 |
| 9 - Hose markings (cut to size) | - 6 |
| 10 - markings / QC (optional) | - 3 4 5 7 11 |
| 11 - Hose markings (cut to size) | - 13 |
| 12 - cylinder head gasket markings | - 13 |
| 13 - hoseclamp protection (optional) | - 1 2 6 13 |
| 14 - ign. plug labels | - 4 5 |

Note:

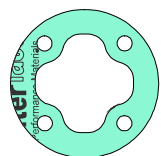
Waterslide decals. Decals are NOT pre cut.
 All decals need to be cut to size with a sharp cutter blade or scissor prior soaking in water.

Trim as close as possible to the printed image. After that they can be treated as normal water slide decals. Use one by one. Do not soak multiple decals at once. It is recommended to clear coat the decals / part after they are applied and dried (flat or gloss according usage) for better durability and to minimize the visibility of the carrier film.

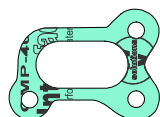


Parts List

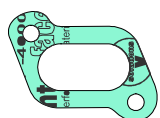
paper gaskets - **P**



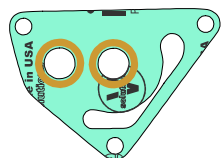
P1 (2x)



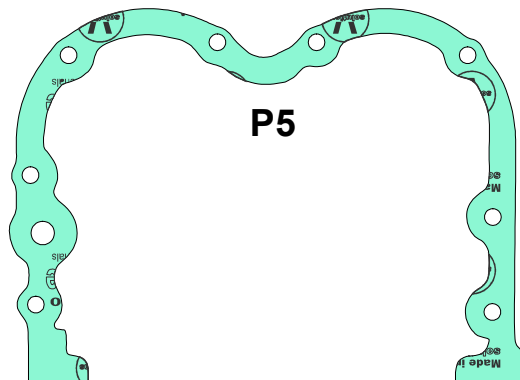
P2 (4x)



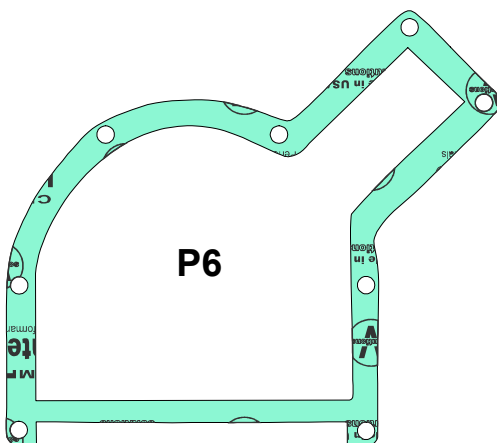
P3 (4x)



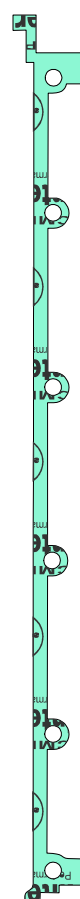
P4



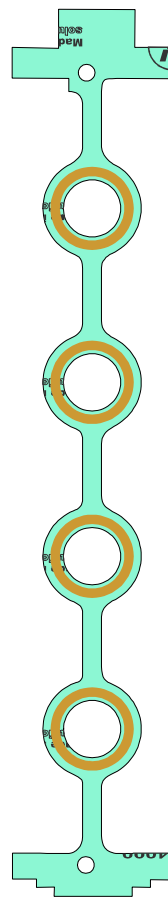
P5



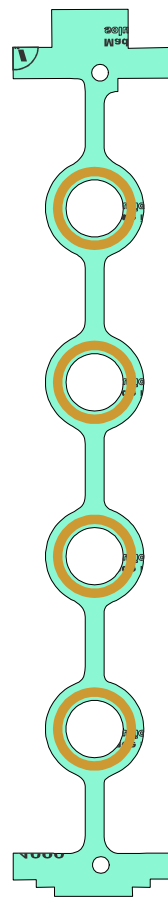
P6



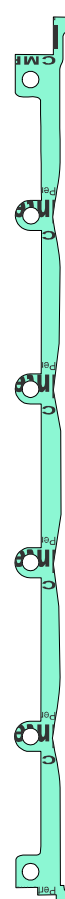
P7 (2x)



P8L



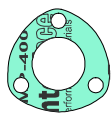
P8R



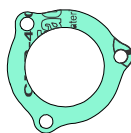
P9 (2x)



P14 (8x)



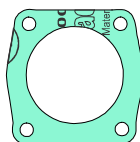
P15



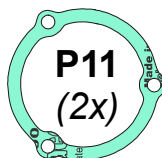
P16



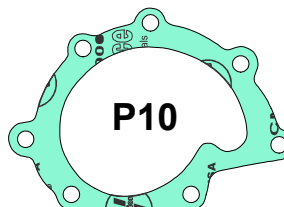
P17 (8x)



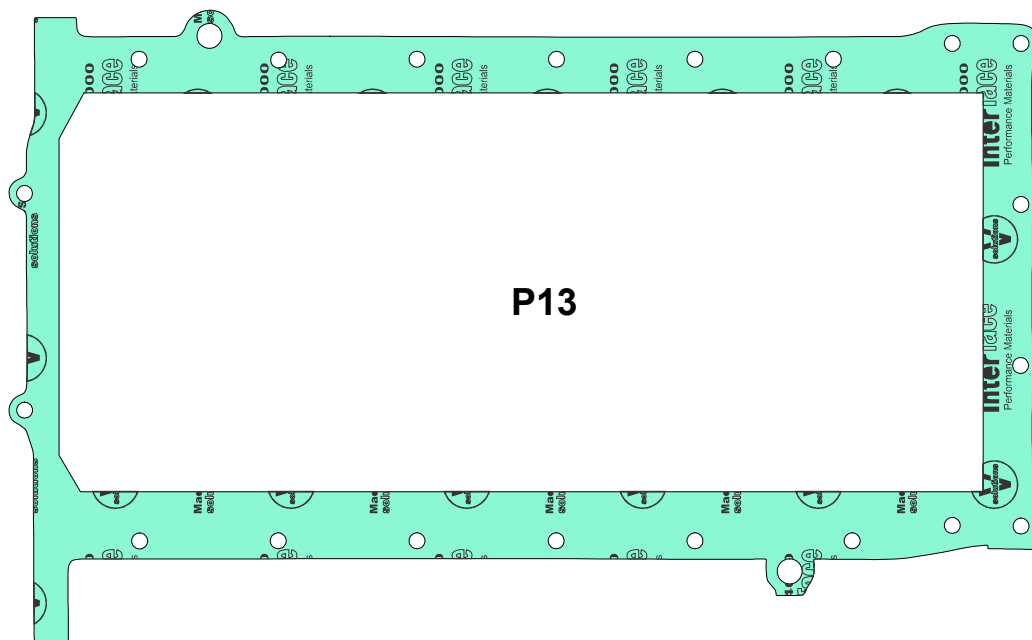
P18 (2x)



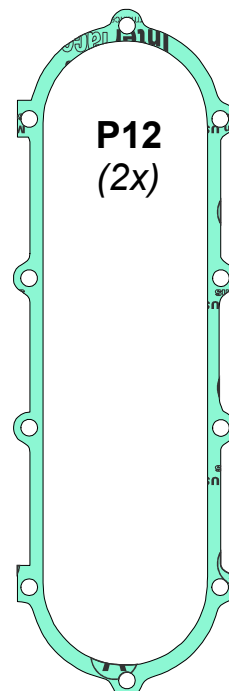
P11 (2x)



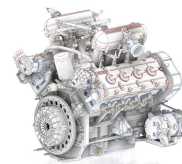
P10



P13



P12 (2x)



Parts List

template - engine stand

use as reference
to solder engine stand base

Use the dimensions instead of the drawing.
Drawing might be off due to printer error.

