



SCM ENGINEERING SERVICES

Technical Report on

MODELING AND DRAFTING OF FRONT AND REAR SHAFT

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MODELING AND DRAFTING OF FRONT AND REAR PINION SHAFT

INTRODUCTION:

Front and rear pinion shafts are used for heavy vehicles. It's used in transmission systems and driving assemblies.

The requirements today indicate a large margin for creative design of such components and **SCM Engineering Services** has undertaken the design of a Pinion Shafts like components for a leading **Indian client**, with over a decade's experience in delivering cutting-edge customer services to global clients.

The project is mainly an editing work for a given sample shaft.

OBJECTIVE:

To design and draft 3-d Model of Front and Rear Pinion Shafts from the input drawings.

METHODOLOGY USED:

The requirements were to design and draft a 3D model of the front and rear pinion shafts resembling a drafting. Sketches containing required dimensions were received from the client. The model was then developed from the initial model to meet aesthetic criteria and the technical details were incorporated from the given sketches. The final draft was made observance in mind the manufacturing requirements and costs.

SOFTWARE USED:

For the present work Solid Works 2004 software was used.

HARDWARE USED:

For the present work Intel(R) based Pentium-4 CPU 2.4 GH, 1 GB RAM machine was used.

RESULTS AND DISCUSSION:

The following figures show the complete design and drafting of FRONT AND REAR PINION SHAFT

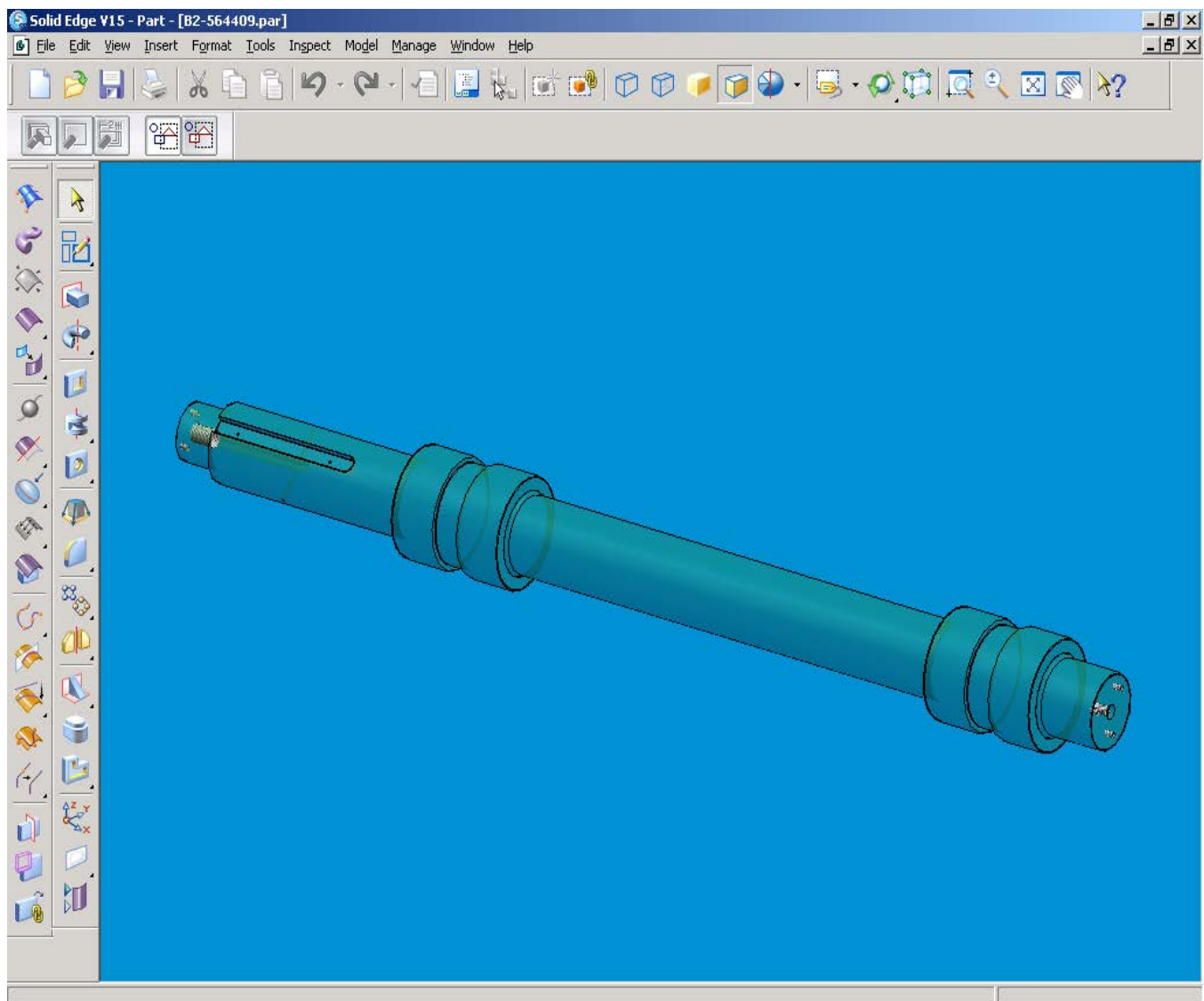


Fig.1 Isometric View Of Front Pinion Shaft

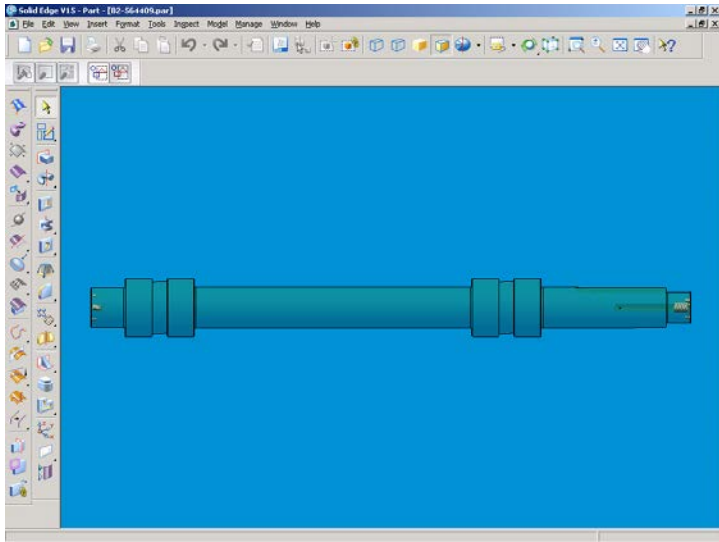


Fig.2 (a) Front View

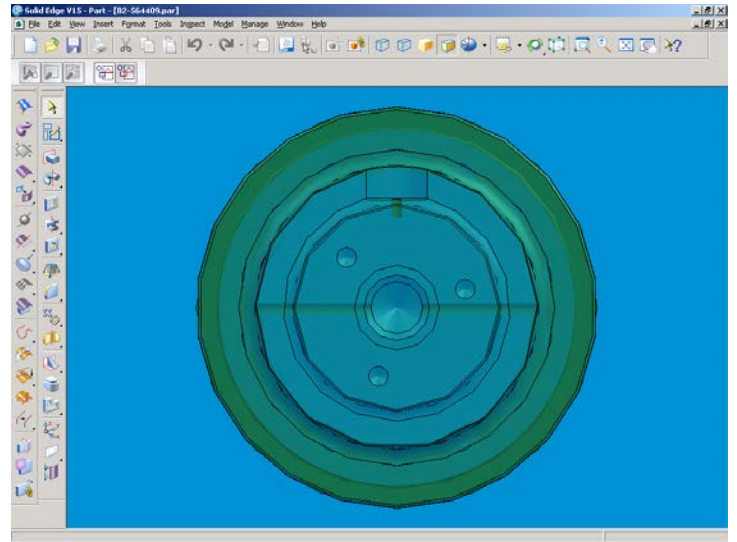


Fig.2 (b) Side View

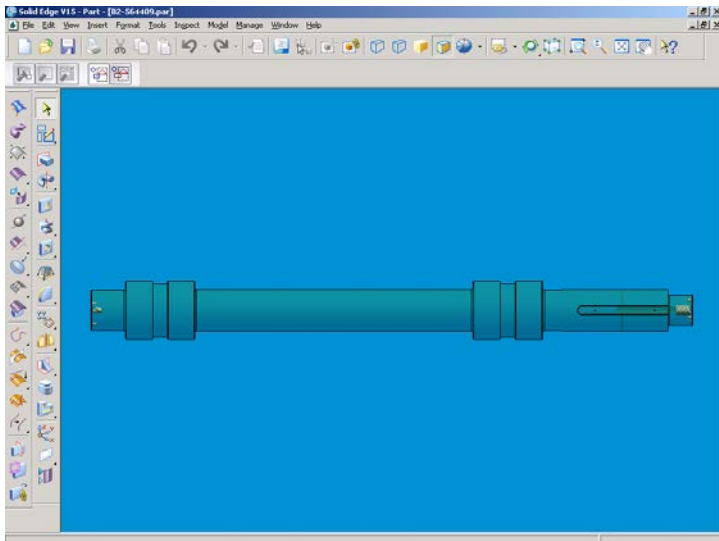


Fig.2 (c) Back View

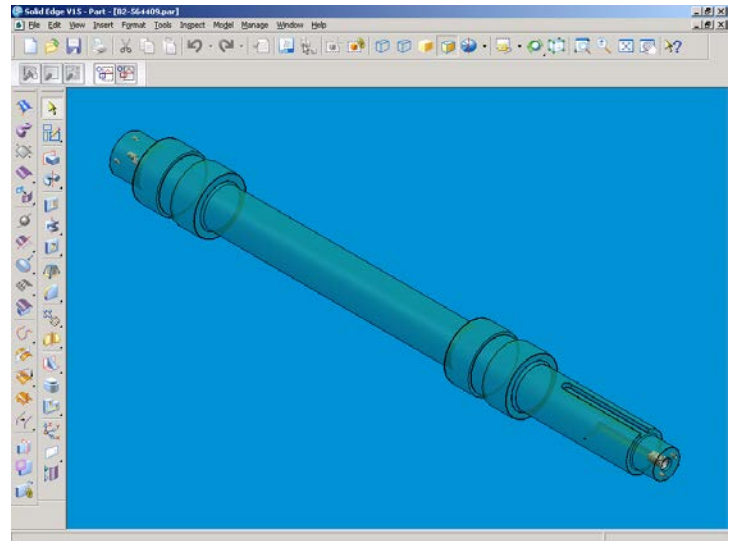


Fig.2 (d) Isometric View

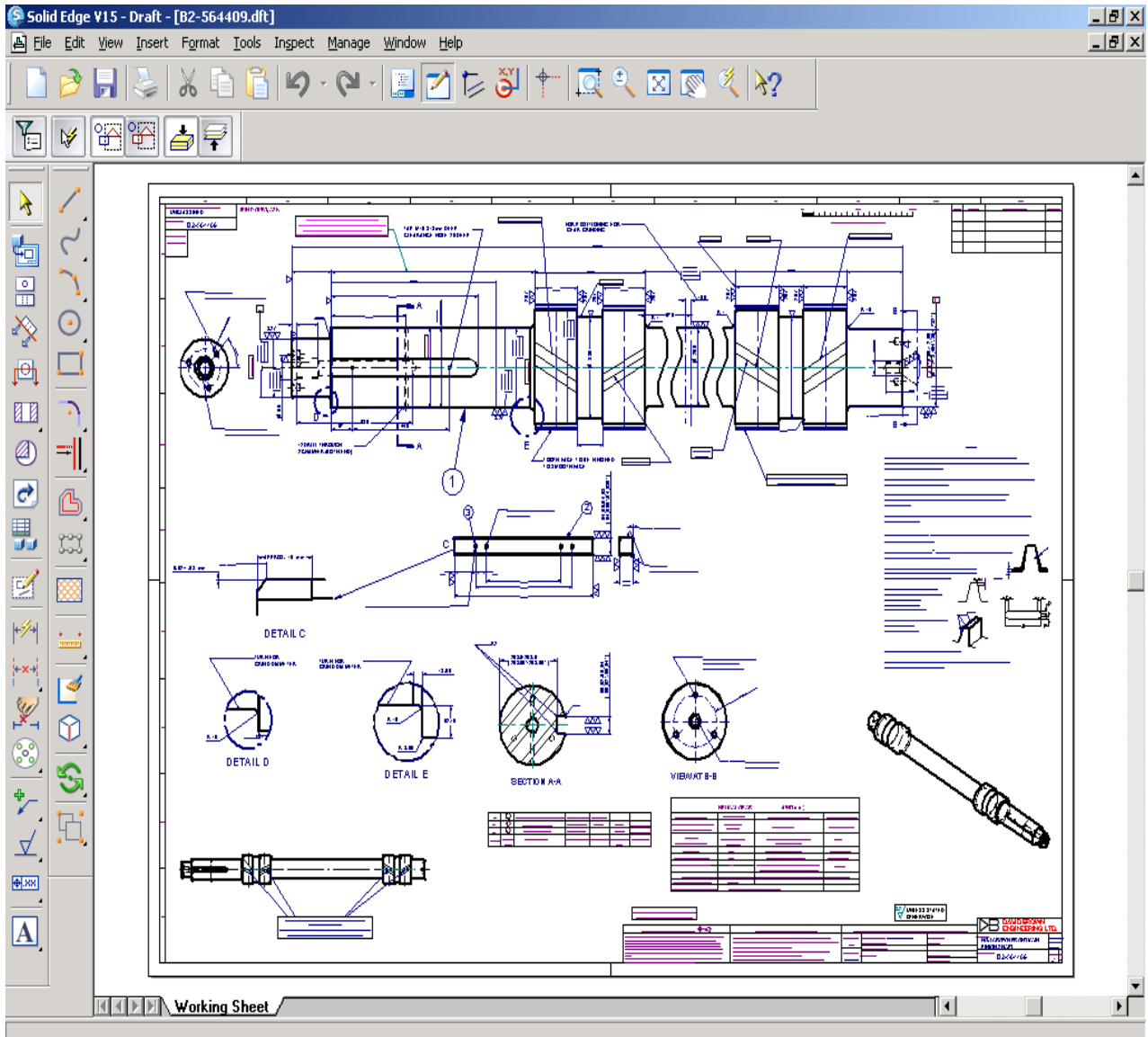


Fig.3 2-D Drawing Of Front Pinion Shaft

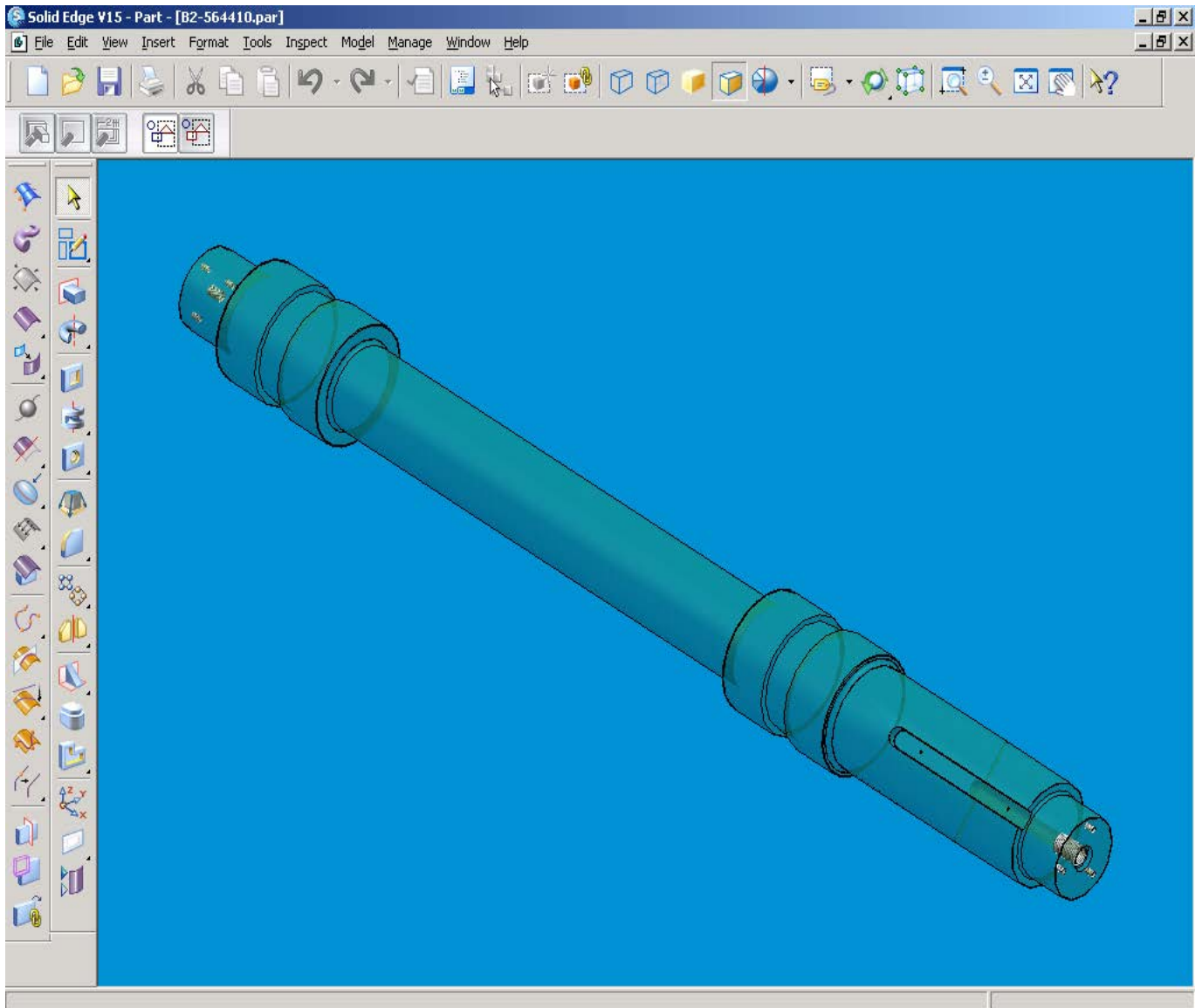


Fig.4 Isometric View Of Rear Pinion Shaft

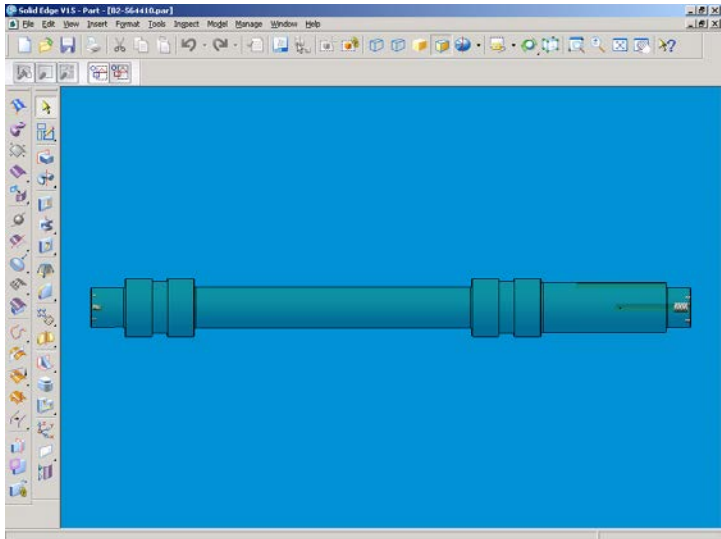


Fig.5 (a) Front view

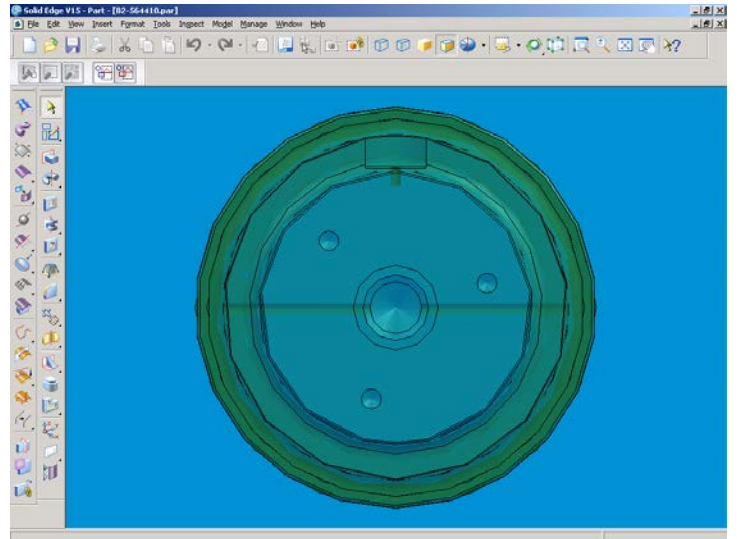


Fig.5 (b) Side view

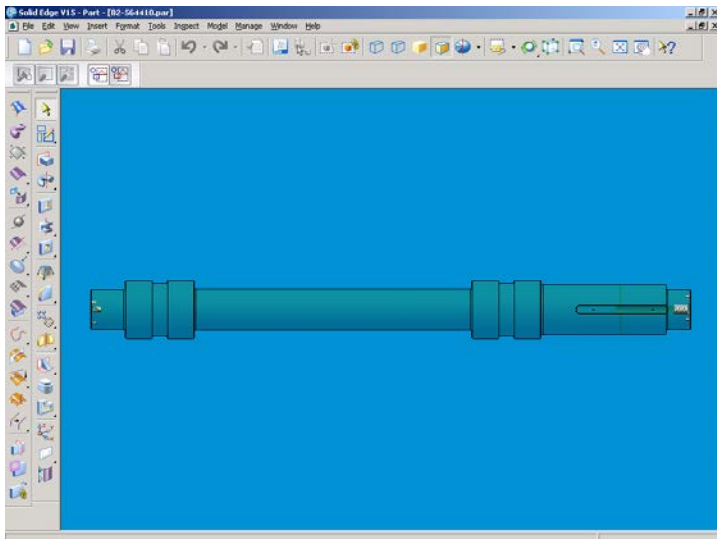


Fig.5(c) Back view

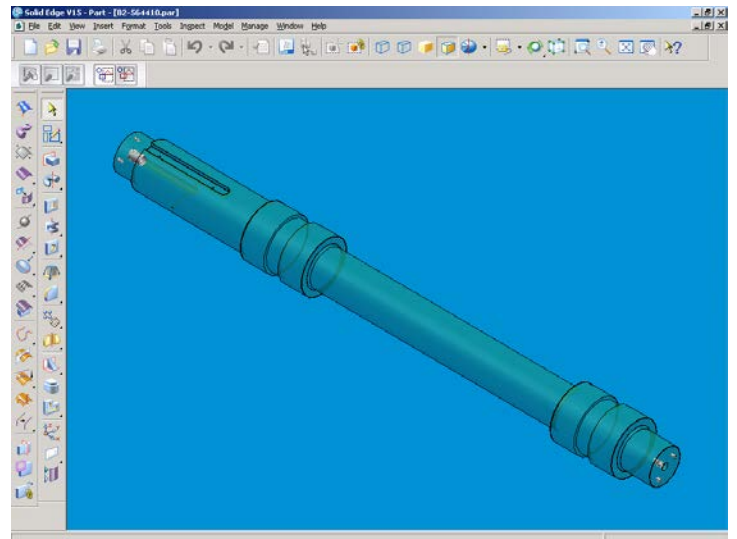


Fig.5 (d) Isometric view

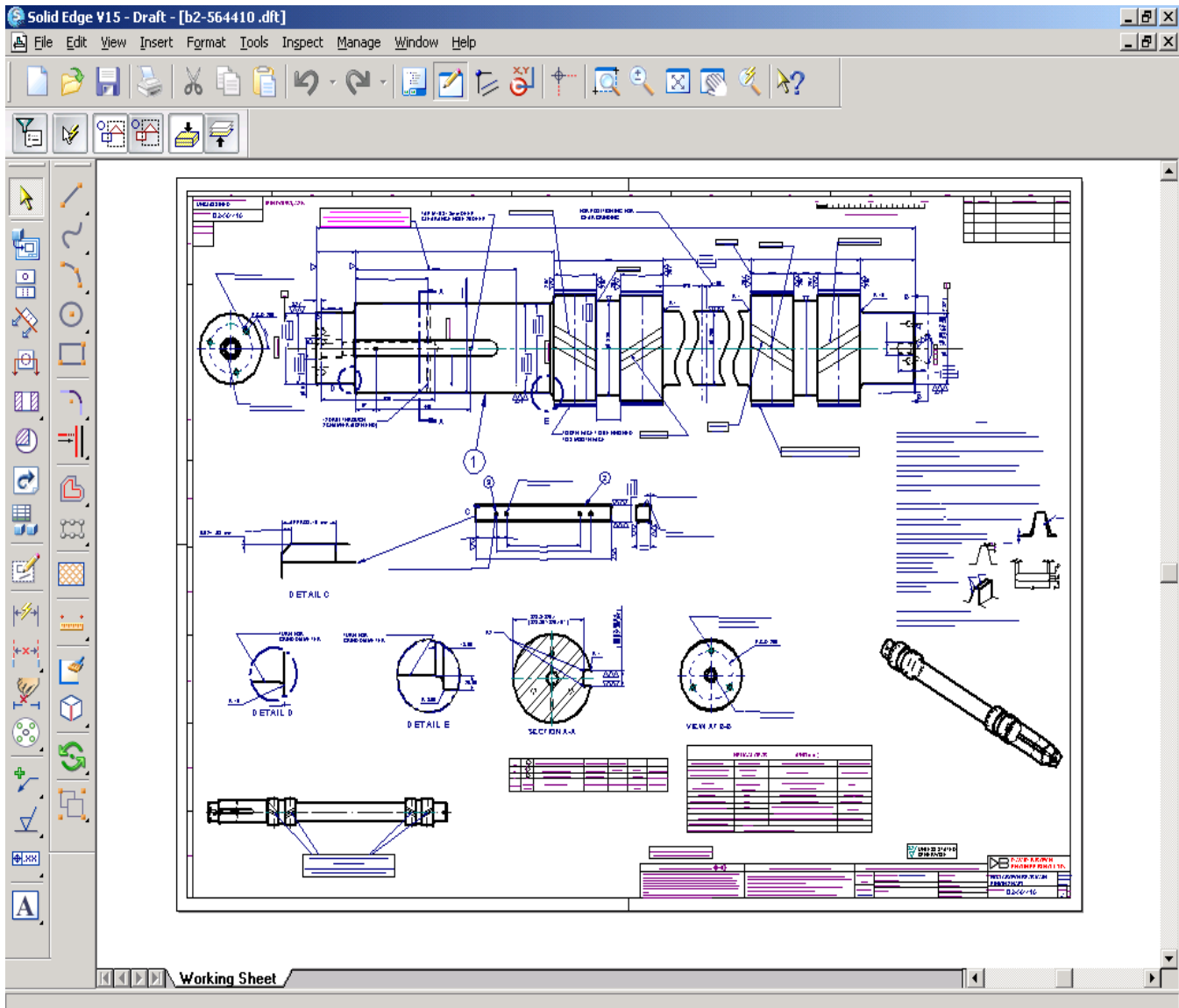


Fig.6 2-D Drawing Of Rear Pinion Shaft

CONCLUSION:

The final 3-D Model and 2-D Drawings are done in 16 Man working hours.