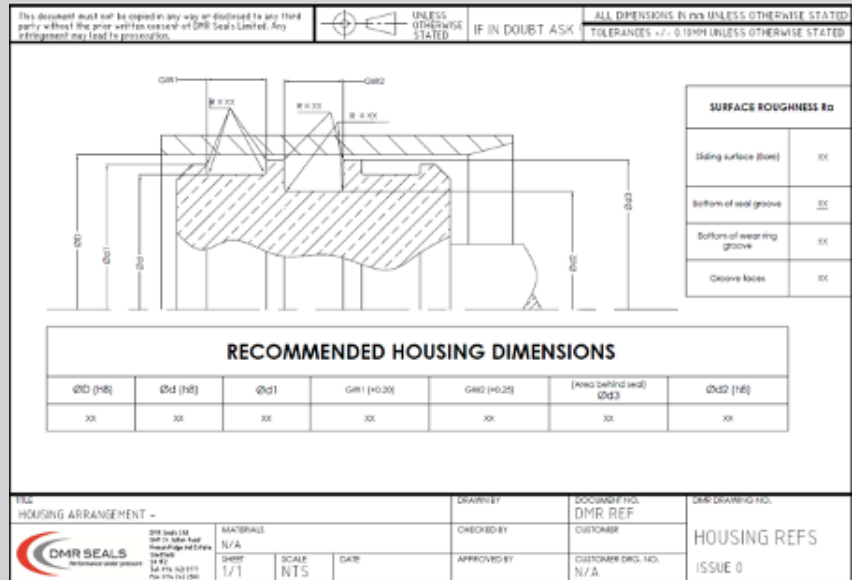
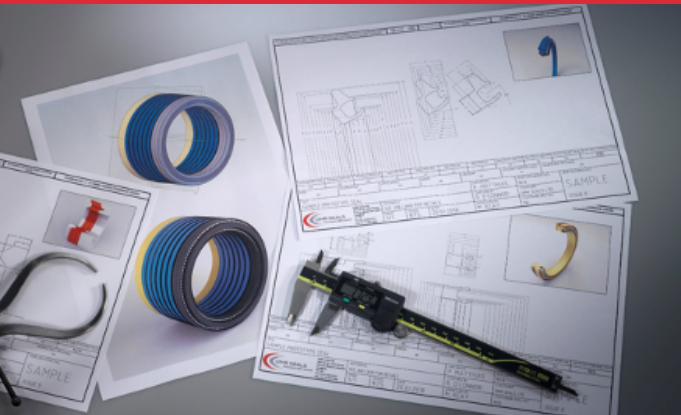


# CASE STUDY

## SOLVING CYLINDER OEM SEALING PROBLEMS



### APPLICATION

Hydraulic cylinder / Jack

### THE CHALLENGE

The customer was having issues with new design, new build cylinders that were not passing tests, which subsequently was holding back an export delivery. After numerous stripping and re-sealing with seals and housings checked against drawings, failure was still being seen which could not be explained. An area of the cylinder was highlighted by the customer for investigation, even though the same seal had been fitted in either end of the equipment, with one seal working and the other not. This issue needed to be resolved ASAP.

### SOLUTION

Our engineer was already on site looking into new applications when the issue was raised and he was asked to take a look. Drawings of the seals and housings were supplied and housing dimensions were taken in the area highlighted and the rest of the system. The housings along with seal drawings were looked into, with focus on the highlighted area. Checking the seal drawings and housing dimensions, it was noted by the DMR Engineer that the seal was wider on the customer drawing than the housing it was

being fitted into. All of the other housing dimensions checked against the seal drawings were correct. The issue was not picked up by the customer because the seals were to size when checked against their drawings then fitted. We also confirmed why one seal was working and the other was not; the extra travel seen on the seal failing when fitting. In this instance it was the cheapest seal in the entire kit causing this issue.

### OUTCOME

The right sized seals were supplied to match the housing dimensions the next day.

### ACHIEVEMENT

The customer tested the new seals which passed tests allowing the export delivery to be completed.

Housings and seal drawings can be machined and supplied to the right dimensions. It sometimes needs another experienced engineer to double check when issues are seen and not identified. At DMR, we have very experienced engineers looking into new project or issue applications in detail, ensuring the right seals are fitted.