Name of part Expanding punch

Pipe forming

Mode of servicing

Source

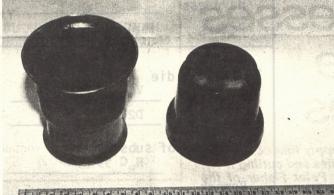
Dr Peter Fisher

Manufactures' Monthly Vo.22, No.12 (1983) p.15

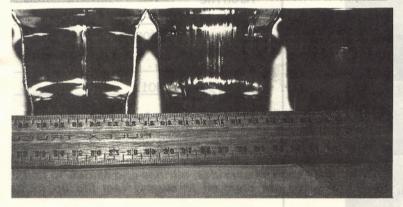
Product 0.1

Punch

Work material







A cross-section of the tube showing severe scoring after 30 parts (uncoated tooling) and an identical part after 7000 shots with a TD coated tool.

Work material

Material

Welded pipe

Size

Hardness

Remark

TD treated part

Carbide

VC

Base metal D2

Harness of substrate

Remark

Working or servicing condition

Machine

Load

Stroke

Clearance

Lubrication

Temperature of work

Result

Base metal, treatment and hardness of the part to be compared

TD die Cannot be used at 80,000-120,000

D2 Hardened

Life and other evidences

TD part

atona OI to beroog7,500 shots, dStill usuable

The part to be compared 008

30 shots/repair, Pick up

Profit obtained through application of TD Process