

#### **SNS COLLEGE OF TECHNOLOGY**



## Coimbatore-35 An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

#### **DEPARTMENT OF MECHANICAL ENGINEERING**

#### **DESIGN OF Transmission System**

III YEAR VISEM

**UNIT 3-Worm and Bevel Gear** 

**TOPIC:Bevel Gear** 



# **DESIGN OF BEVEL GEARS**







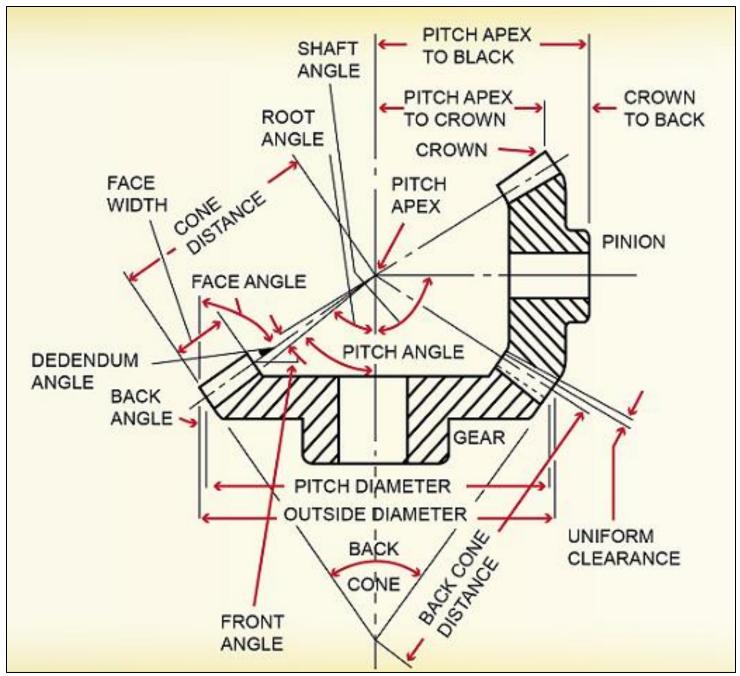






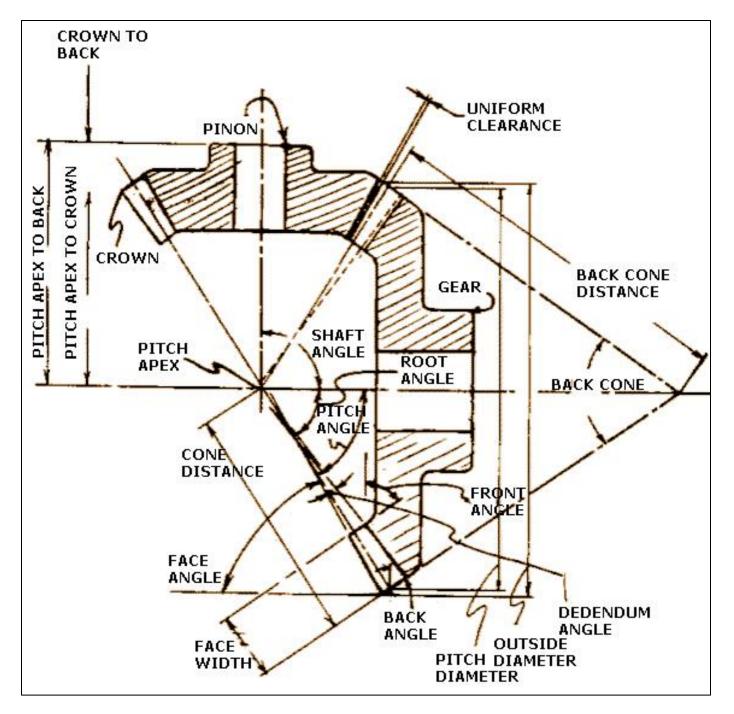


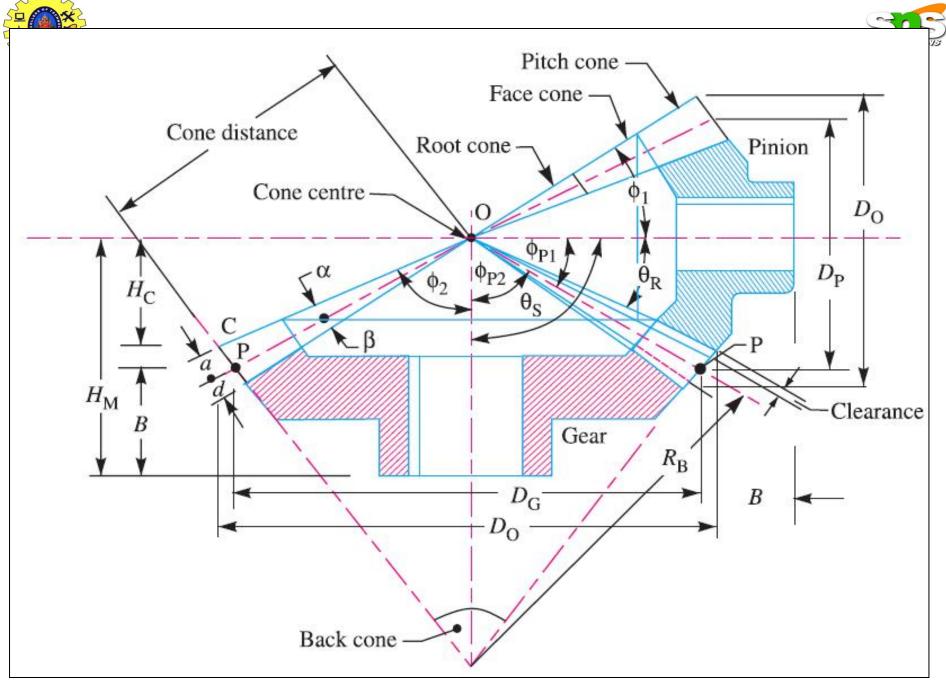








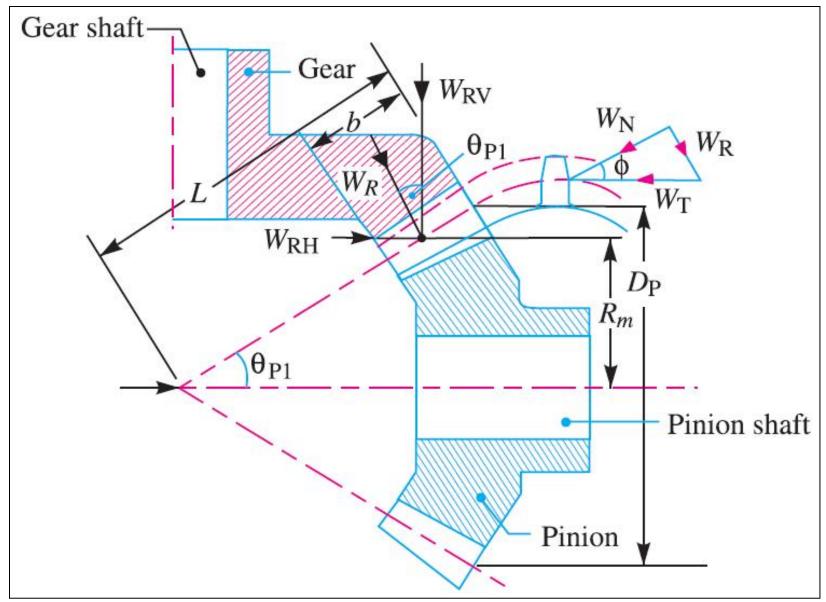






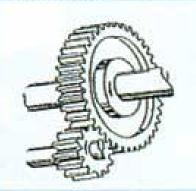
## FORCES ACTING ON A BEVEL GEAR



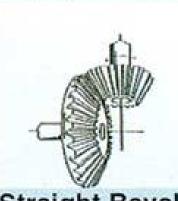








Spur Gears Transmissions



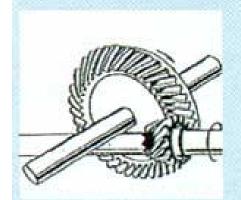
Straight Bevel Gears Industrial Equipment Some Differentials



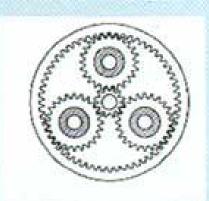
Industrial Equipment Some Differentials



Gear Reduction Boxes



**Hypoid Gears** Differentials



**Planetary Gear** Set **Transmissions** 



**Helical Gears Transmissions** 



Herringbone Gears Transmissions



## **STRAIGHT BEVEL GEARS**





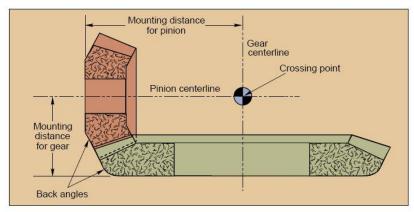
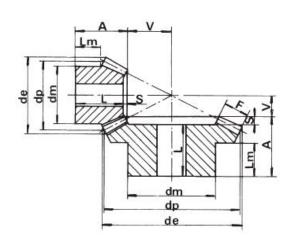
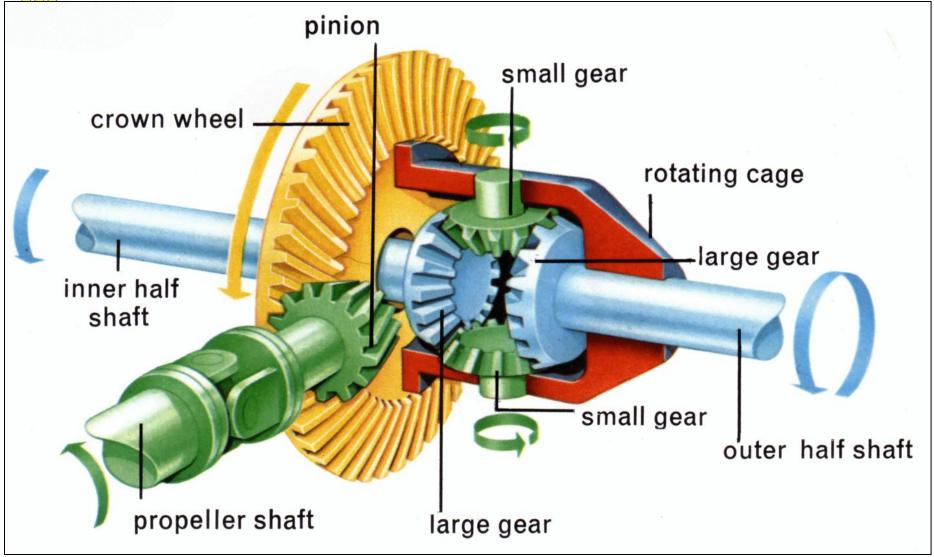


Figure 1 — Mounting distances used for assembling bevel gears.







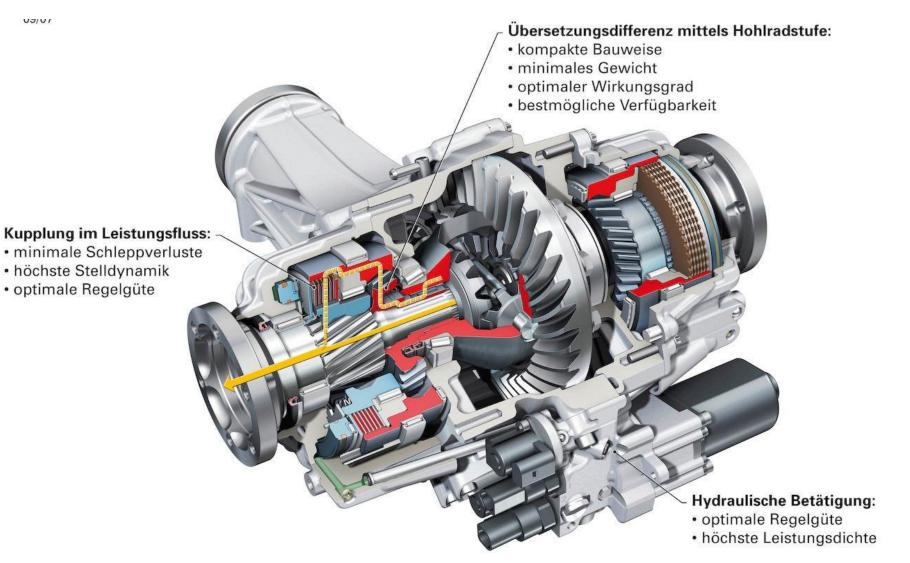




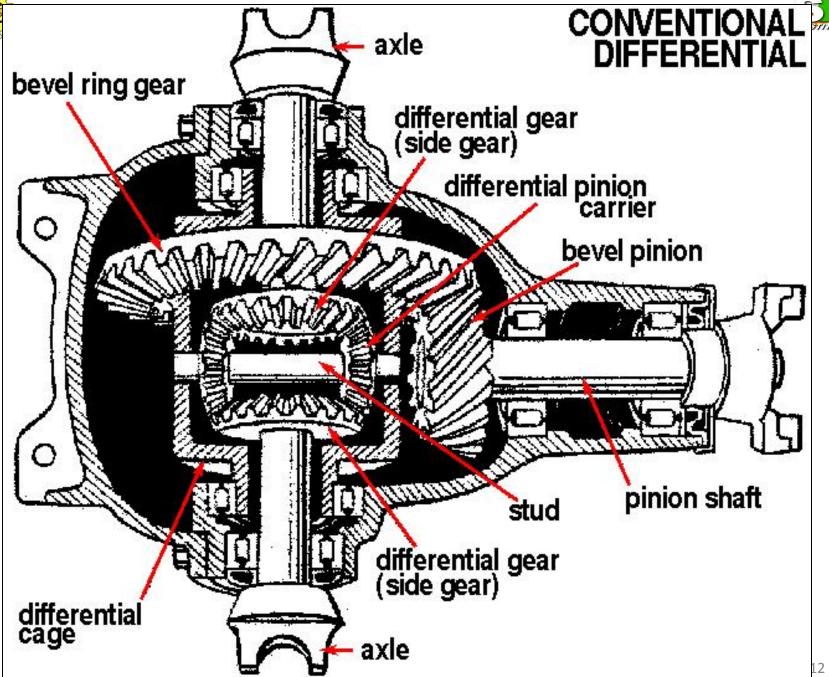
#### **Audi car differential**



03/07











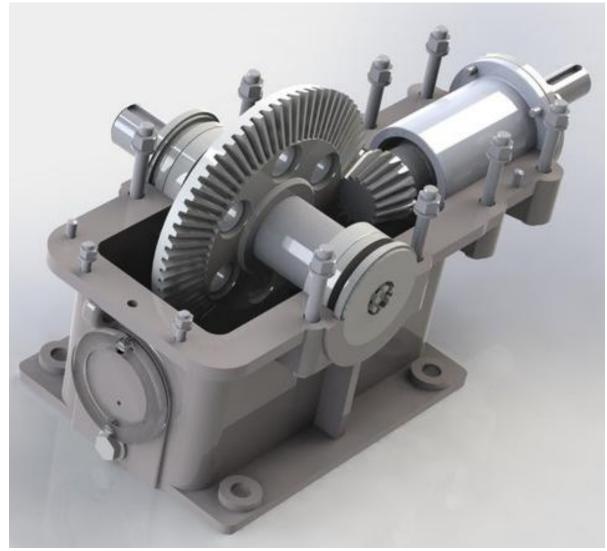














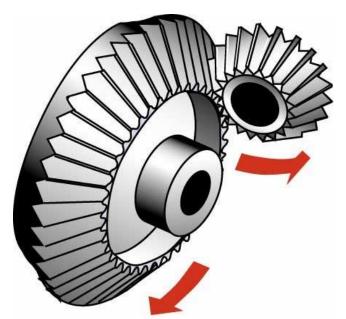








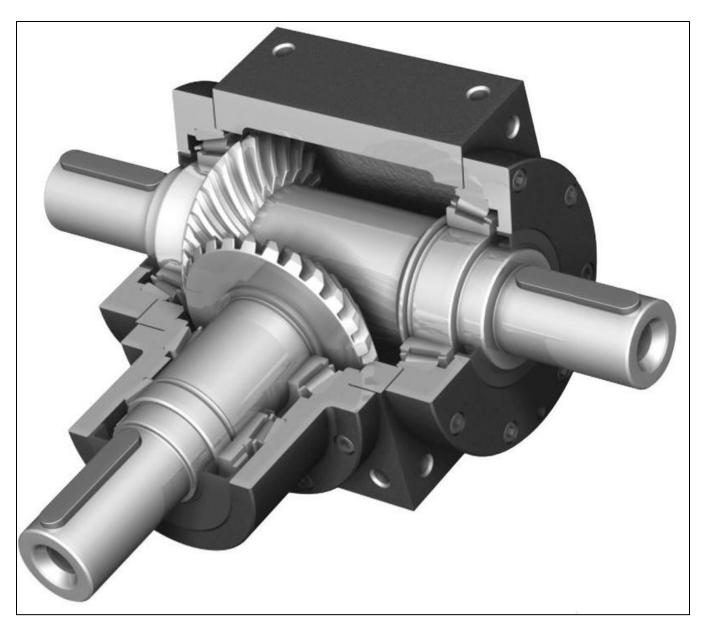


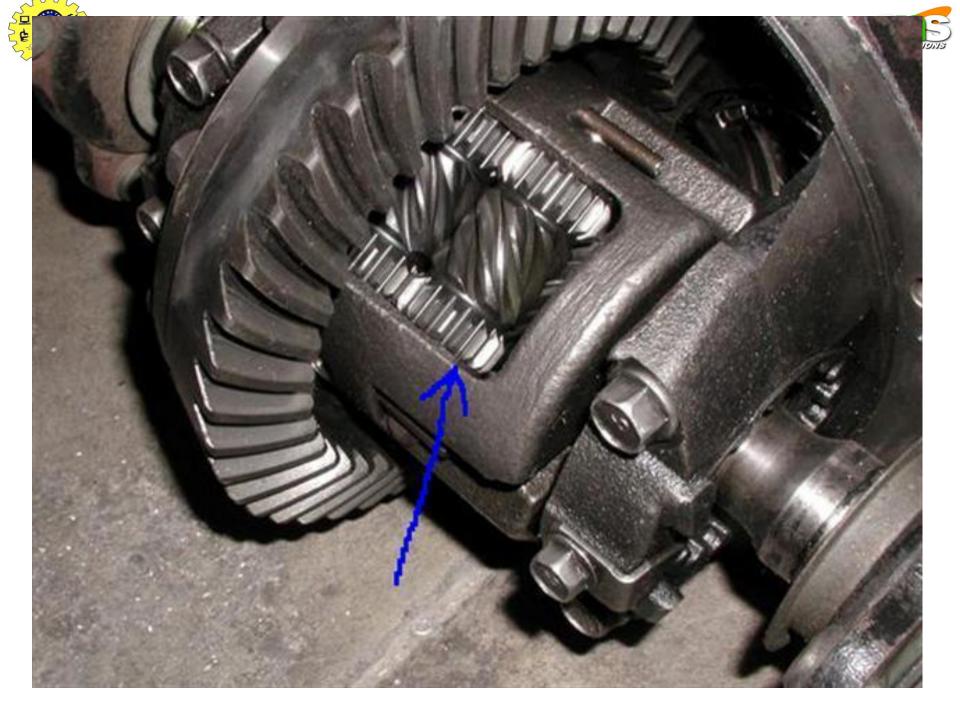














#### **STRAIGHT AND SPIRAL BEVEL GEARS**













## **SPIRAL BEVEL GEAR**







# **SPIRAL BEVEL GEAR**





# **SPIRAL BEVEL GEAR**





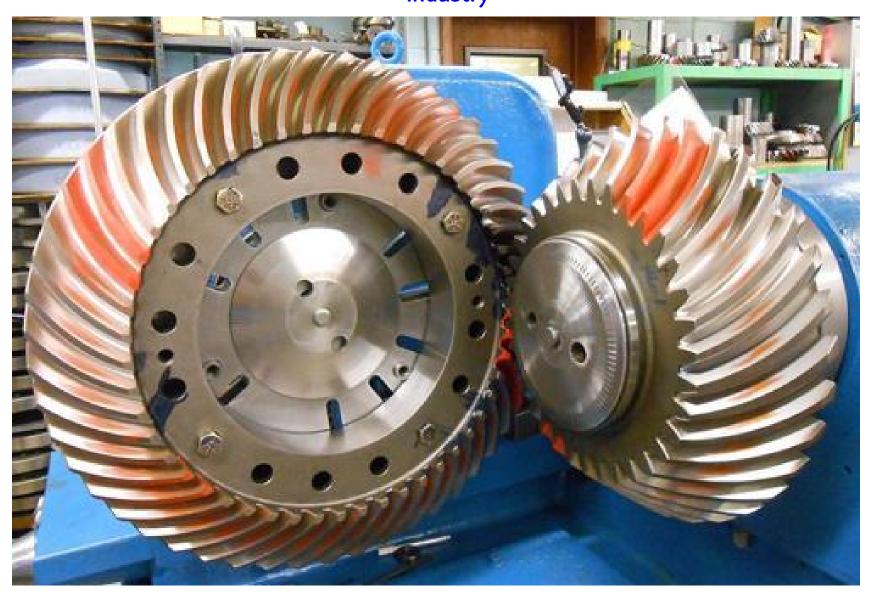
# **STRAIGHT BEVEL GEAR**

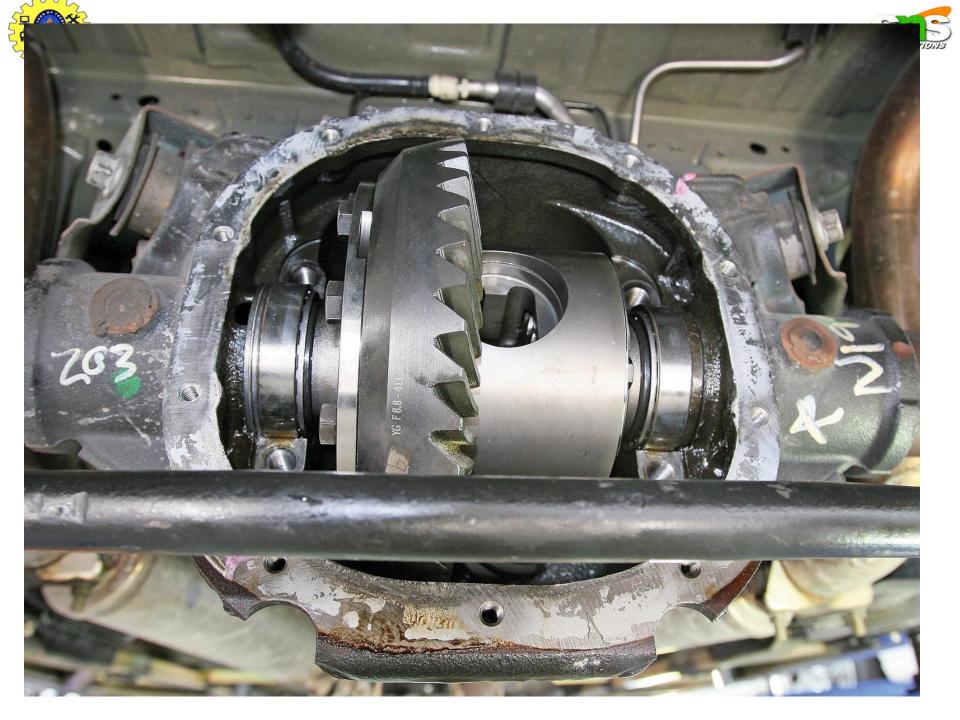






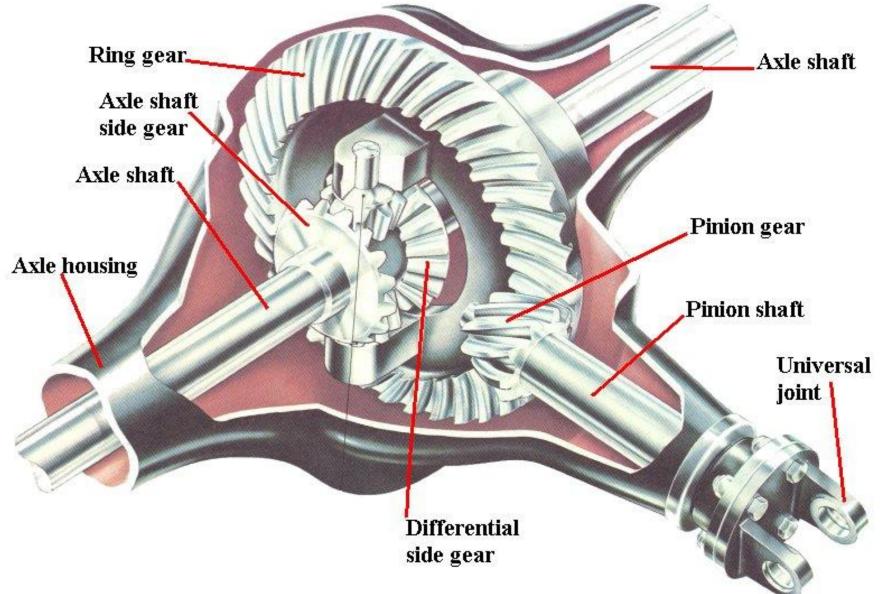
# CNC Machined Steel Bevel Pinion and Bevel Gear for the Gearbox Manufacturing Industry

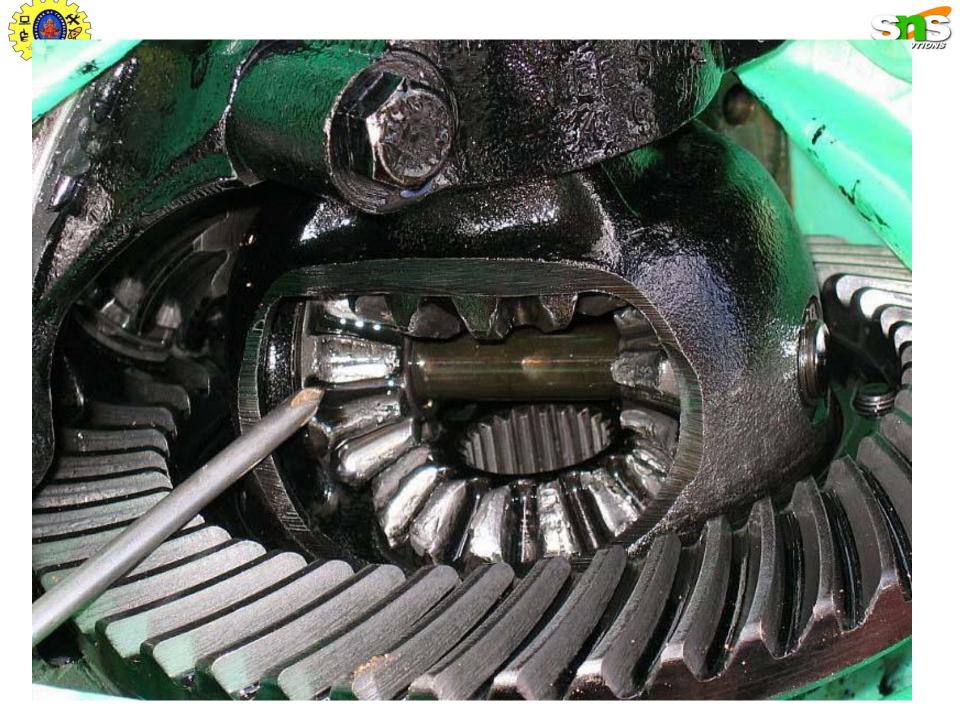
















# **BEVEL GEAR FAILURES**









Finished hypoid 38" gear set for a paper pulper cut by 3/16 ball end mill.







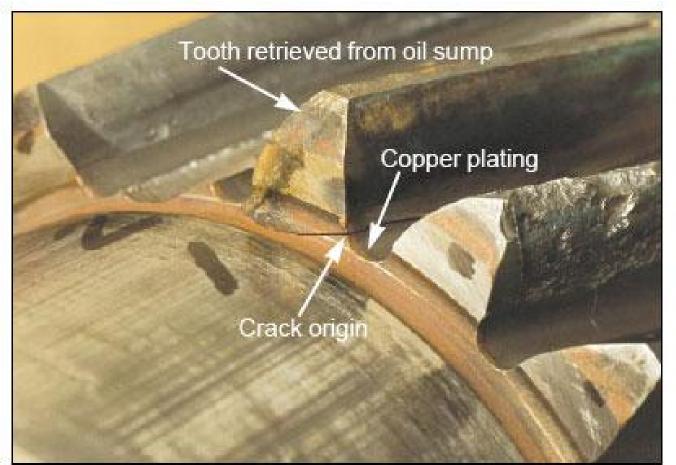


Figure 1 —
Fatigue crack
failures in tooth root
fillets of a pinion in a
wind turbine gearbox
were traced to
copper plating.





Figure 3. Fatigue Crack in Gear Tooth Root Fillet.













