







# UNITED GEARS Gearing and pumping your engine









GEARS AND SHAFTS

LUBRICATING OIL PUMPS

WATER PUMPS HYDRAULIC PUMPS CONNECTING RODS

WATER SEPEARTORS

OIL FILTERS



#### **GEARS AND SHAFTS**

United Gears has been into manufacturing of engine and transmission gears and shafts over 2.5 decades.

Since variable valve timing (VVT) in internal combustion engines has a significant impact on engine performance and emission, the Timing Gears controlling VVT should be extremely precise & accurate.

The company understands the importance of delivering a correct transmission gear and hence takes utmost care at each and every operation.





# LUBRICATING OIL PUMP ASSEMBALIES

The company manufactures both gear type oil pump and rotor type oil pumps.

its of prime importance to manufacture oil pump in close tolerances so that desired flow is attained at lowest possible rpm.

#### **WATER PUMPS**

UNITED GEARS (AUTO PUMP ENGINEERS) is known for Water Pumps that lasts the life of the engine. Water pumps are manufactured with graded CI castings, imported seals and integral bearing shafts in dedicated state of the art facility. Each assembly is 100% leak tested for both housing and assembled water pump. Only Dynamic balanced pulleys in various 'V' or POLY-V grooves are fitted to ensure maximum bearing life







### **OIL FILTER ASSEMBALIES**

United Gears specialize in manufacturing of both spin on and cartridge type filter assemblies. The filter adaptors are machined on dedicated line of SPMs, CNC turning and machining centers, with in close tolerances to avoid leakages from surface after installation and to allow easy replacement of filter element. All filter assemblies are checked under air pressure of 8 bar on particularly designed leakage testing machines.





## **HYDRAULIC PUMPS**

United Gears offers fully customizable solutions depending on our customer's hydraulic function prerequisites. The pumps can be altered in various aspects ranging from power, noise reduction, smoothness etc.

Today our Hydraulic Pumps are used widely across many sectors such as automotive, machine tool, earthmoving, agriculture etc.

Key features of Hydraulic Pumps Size Range from 4 to 22 cm3/rev

Heavy duty applications

Multiple selection of drive shaft from splines to taper shaft Pumps manufactured in both flange or threaded inlet/outlet ports

Continuous operation at 220 bar Reduced noise levels and vibration

High volumetric efficiency under all operating conditions.

# **CONNECTING RODS**

Our Connecting rods are manufactured on complete CNC line. The rods are grouped into matched engine sets and undergo 100% Magnaflux

Key Features:

Surface finish of 0.08Ra

Bend and twist of rod maintained within 40 microns







## WATER SEPEARTORS

Diesel absorbs more water than gasoline and the fuel filters installed are not designed to remove water from the fuel. The water in the fuel is a major cause of injection pump failure. Water Separator Assembly removes water from diesel before it reaches the injection system thus, eliminating all failure caused by water in the fuel





# CNC TUNRED AND MACHINED COMPONENTS

United gears has a vast machining section comprising of turning and 4 axis vertical machining centers along with supporting machines.

We can manufacture all sort of machined components with inspections done on CMM and Contour measuring machine.

#### PLANT AREA

With an area of close to 12000 sq.mt, the company is strategically located in the industrial hub of Panchkula, Haryana. all modes of transport is available from our locations to customer end.

#### MANUFACTURING STRENGTHS

The company has all kinds of Turning centres, vertical machining centres (4axis), angular and surface grinders, Gear Hobbers, shavers, shapers, broaching, heat treatment, designated tool room for fixturing.

#### **INSPECTION AND TESTING**

United Gears understand of delivering a tested product to the customer and hence test all its products before delivering. The company has custom made test rigs for all components which are suitable to check the desired parameters as per drawings. Testing and inspection facility includes gear Lead profile machines, water pump wet and dry test rigs, Testing rigs for Oil pumps, hydraulic pumps, water separators, oil filter assemblies, bend, twist and C.D checking gauges for connecting rods etc.

#### **RESEARCH AND DEVELOPMENT**

United Gears has a designated cell for Research and development with extensive use of designing software's for constant addition to existing components for greater performance.

GEARS AND SHAFTS

LUBRICATING OIL PUMPS

WATER PUMPS

HYDRAULIC PUMPS

CONNECTING RODS

WATER SEPEARTORS

**OIL FILTERS**