



The Ultimate in Precision





Engine Rebuilding Capability

Teterin has dedicated engine rebuilding bays for large gas and diesel engines and smaller ExDES engines.

The rebuild bays are equipped with overhead cranes, work benches and spare parts racks.

Engines are rebuilt in accordance with engine manufacturer specifications and customer requirements, using genuine or aftermarket spare parts as specified.

Ex-DES engines are rebuilt then dynamometer tested and gas emissions tested in the Teterin Engine Test Cell prior to delivery.

LARGE DIESEL & GAS ENGINES

- Jenbacher Type 3, 4 and 6
- MWM 2020, 2016 series
- Deutz TGC620, TBD620
- MTU
- MAN

SMALL ExDES ENGINES

- Cat 3126, 3306
- MWM 4.10 TAC
- Perkins 1006, 1104

Teterin Engine Test Cell

- Taylor DX 33 600kW Engine Dynamometer (ECU capable)
- Gas Analysis Testing: CO / CO2 / NOX
- Dyn Pro Instrumentation
- PC based data acquisition and control system
- Control room fitted with high resolution zoom cameras



Metrology

- Discovery II D-28 Fixed Bridge CMM (Coordinate Measuring Machine)
- 564 individually identified calibrated measuring equipment
- All standard test pieces calibrated by NATA
- Electronic register of all measuring equipment



Engine Component Reconditioning Capability

We recondition components for all major diesel and gas engines, such as Cat, Cummins, MTU, Waukesha, Jenbacher, MAN, MWM, White Superior, ALCO and EMD.

All engine components are chemically cleaned in a hot caustic bath prior to entering the Survey section where they are dimensionally inspected and an Opening Report prepared. Components are QA inspected to the Teterin Quality Standard prior to product release then painted and packaged ready for dispatch with a Closing Report.

ENGINE BLOCKS

- Chemical cleaning
- Full survey and reports
- Fluorescent magnetic particle inspection
- Pressure testing
- Laser alignment inspection
- Reboring, honing, resleeving
- Tunnels – boring, saddle repairs, inserts & thermal arc spraying
- Thrust repairs
- Fit upper liner, fit lower liner, insertion and final boring
- Cam tunnel resleeving
- Cam follower/lifter bore resleeving
- All cylinder block damage repairs
- Head bolt/stud – thread resleeving
- Water passage hole repairs
- Dowel hole repairs
- Metal spray and machine top decks
- Water jacket electrolysis / corrosion repairs
- Repairs to idle gear locations
- Honing

CYLINDER HEADS

- Chemical cleaning
- Fluorescent magnetic particle detection
- Dye penetrant detection
- Pressure testing
- Valve guide replacement
- Valve seat replacement / single point machining
- Valve face grinding
- Injector tube replacement
- Injector seat machining
- Pre-combustion chamber replacement and thread repairing
- Head surface machining
- Manifold repairs
- Fit helicoils / keyserts / loc-inserts
- Oil cooler cleaning / flushing / pressure testing
- Intercooler cleaning, flushing and pressure testing

CRANKSHAFTS

Survey:

- Chemical cleaning
- Fluorescent magnetic particle inspection
- Check for straightness
- Check diameters
- Check surface finish, flatness and hardness
- Check threads, nose, keyways, thrusts, seal areas

Work Scope:

- Removal oil gallery plugs
- Crankshaft straightening
- Chrome reclamation of journals
- Seal area reclamation
- Grind journals
- Micro polish journals
- Balance crankshaft
- Shot peening

CONRODS

Survey:

- Fluorescent magnetic particle inspection
- Check for bend
- Check alignment
- Check length
- Measure little end and tunnel
- All measurements by Fixed Bridge CMM

Work Scope:

- Resize tunnel
- Rebush and machine
- Proof test little end bush

OTHER

- Water and oil pumps and pump housings
- Manifolds, gears, compressors and radiator fans
- Large wheel hub / spindle repairs
- Marine propeller shafts
- Wind turbine main shafts
- Rail rolling stock wheels and axles
- Large hemisphere repairs
- Large planetary gear repairs
- Large trunnion repairs
- Large differential repairs
- Special sleeve manufacturing
- Lower & upper liner sleeve manufacturing
- Driveline repairs
- Engine fan repairs and reblading and balancing

Engine Component Reconditioning Capacity

LARGE CYLINDER HEADS & BLOCKS			
Cylinder Blocks	Max. length 6,000mm		
Crankshafts	Max. length 4,600mm	Max. weight 3,000kg	Max. journal dia. 275mm
Connecting Rods	Max. tunnel size 400mm	Max. weight 500kg	
Crankshaft and Industrial Dynamic Balancing	Max. length 7,000mm	Max. weight 1,000kg	Crankshafts, armatures, impellers, fans/blowers
Liners	Max. length 1,000mm	Max. dia. 600mm	
Engine Fan Repairs	Max. dia. 2,000mm		
Flywheel Grinding	Max. dia. 700mm		

Machine Capacity

GRINDING					
CNC Crankshaft Grinder	Max. swing over bed 1,100mm	Max. grinding dia. 250mm	Max. length between centres 4,600mm	Max. weight 2,500kg	Max. shoulder dia. 450mm
Man. Crankshaft Grinders (x4)	Max. swing over bed 1,300mm	Max. grinding dia. 275mm	Max. length b/w centres 4,500mm	Max. weight 3,000kg	Max. shoulder dia. 400mm
Face Cylindrical Grinding	Max. dia. 850mm	Max. face width 170mm			
Internal Planetary Grinder	Max. wheel dia. 400mm	Max. length of bore 700mm	Table clamping size 970mm x 770mm	Max. weight 1,000kg	
Surface Grinding (x2)	Max. length 1,000mm	Max. width 300mm	Max. height 600mm		
MILLING AND BORING					
CNC Valve Facing	Max. length 1,370mm	Max. width 500mm	Max. height 820mm	Machining capacity 20mm to 163mm	
NC Mills (x4)	Max. travel length 5,000mm	Max. travel height 2,000mm	Max. travel width 900mm		
CNC Lathes (x2)	Max. dia. 360mm	Max. swing over bed 530mm	Max. swing over cross slide 330mm	Max. length between centres 600mm	
Cylinder Liner Honing (x3)	Max. dia. 355mm	Max. stroke 900mm			
Drilling	Height 2,000mm	Radial arm length 2,400mm			