



**Eastham  
Engineering**

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## **Tim Eastham BSc (Hons) CEng MIMechE ACILA**

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Tim is a Chartered Mechanical Engineer and Chartered Loss Adjuster with 8 years of industrial experience in the gas turbine manufacturing and machine tool industries, followed by 20 years' experience as a consulting engineer/specialist loss adjuster dealing mostly with engineering and petrochemical losses, particularly concerning gas and steam turbines and other rotating machinery.

### **Employment History.**

#### **July 2010 to Present: Principal Consulting Engineer & Managing Director, Eastham Engineering**

Tim set up Eastham Engineering to provide engineering advice to Loss Adjusters and Insurers in relation to extent of damage and possible repairs, cause investigation and claims adjustment for claims involving power generation equipment and rotating machinery. Tim will also provide advice where appropriate on claims in the petrochemical and similar industries and on machinery breakdown and similar losses.

**April 2007 to July 2010: McLarens Thailand )**

**August 2005 to April 2007: McLarens Vietnam ) Regional Mechanical Engineer.**

**October 2002 to August 2005: McLarens Singapore )**

Regional Mechanical Engineer and loss adjuster for the McLarens Young International Group from October 2002 to July 2010. Tim was both a loss adjuster handling his own claims and a technical advisor role in relation to Insurance claims for all MYI offices in the Asia-Pacific region. Tim concentrated on construction and operational engineering claims relating to Gas and Steam Turbines, Mechanical Breakdown, power and oil industry claims and engineering losses in general.

#### **May 2001 to October 2002: Munich International Technical Loss Adjusters, Munich, Germany.**

Engineering loss adjuster handling power and oil industry construction and operational insurance claims, particularly in Northern and Eastern Europe and North Africa.

#### **April 1997 to May 2001: IRISC Technical Services, Hong Kong.**

Regional Engineer: Engineering loss adjuster handling power and oil industry construction and operational insurance claims for the Asia-pacific region.

**July 1996 to March 1997. Ellis & Buckle, Birmingham, UK.**

Engineering loss adjuster for the West Midlands area of the UK, and technical advisor to the Midlands specialist adjusting unit.

**August 1990 to July 1996: European Gas Turbines, Lincoln, UK.**

Mechanical Applications Engineer. Responsible for specifying and handling all mechanical aspects of Gas Turbine projects from initial tendering to final handover at site of the completed project (and beyond as required). Projects included onshore and offshore power generation and pump and compressor plant, in Europe, the Middle East and the Asia-Pacific region. Tim specialised in the General Electric LM1600 and LM6000 gas turbines, the latter of which is found in many Asia-pacific countries.

**October 1987 to August 1989: Kearns-Richards Ltd.**

Design Draughtsman at a CNC Machine tool manufacturing company.

**Qualifications**

Chartered Loss Adjuster, and Associate Member of the Chartered Institute of Loss Adjusters of the United Kingdom (2006).

Chartered Mechanical Engineer and Member of the Institute of Mechanical Engineers of the United Kingdom (1994).

Bachelor of Science in Mechanical Engineering, Manchester University, England (1986).

Post Graduate Certificate in Education, Leeds University, England (1990).

Ten 'O' Levels and Four 'A' Levels, Lancaster Royal Grammar School, (1976-1983).

Summary of significant losses that Tim has been significantly involved with:

**Gas Turbine loss experience.**

Siemens SGT6-8000H - Foreign Object Damage to Compressor, Korea.  
Siemens SGT6-5000F - Contamination damage to 10 gas turbines, Saudi Arabia.  
Siemens SGT6-5000F - Compressor damage in 6 gas turbines, Saudi Arabia.  
Siemens SGT6-5000F - Domestic Object Damage to Compressor, Saudi Arabia.  
Siemens SGT6-5000F - Domestic Object Damage to Compressor, Saudi Arabia.  
Siemens SGT6-5000F - Compressor failure and damage, Saudi Arabia.  
Siemens SGT6-5000F - Compressor failure, Saudi Arabia.  
Siemens SGT6-5000F – Hot Section damage, Saudi Arabia.  
Alstom GT26B - Fuel gas contamination, Mexico.  
Alstom GT26B - Claim review, Japan.  
GE 9FA - Foreign Object Damage to Compressor, Thailand.  
GE 9FA - Foreign Object Damage to Compressor, Thailand.  
GE 9FA - Stage 0 Compressor Blade failure, Hong Kong.  
GE 9FA - Stage 0 Compressor Stator Vane failure and compressor damage, Thailand.  
GE 9FA - Stage 0 Compressor Stator Vane failure and compressor damage, Thailand.  
GE 9FA - Stage 1 Compressor Rotor Blade failure and compressor damage, Thailand.  
GE 9FA - Stage 1 Compressor Rotor Blade failure and compressor damage, China.  
GE 9FA - Stage 1 Compressor Stator Blade failure and compressor damage, China.  
GE 9FA - Stage 3 Compressor Stator Vane failure and compressor damage, China.  
GE 9FA - Stage 5 Compressor Stator Vane failure, plus FOD, Thailand.  
GE 9FA - Stage 15 Compressor Stator Vane failure and compressor damage, Thailand.  
GE 9FA - Stage 15 Compressor Stator Vane fretting, Malaysia.  
GE 9FA - Stage 15 Compressor Stator Vane fretting, Malaysia.  
GE 9FA - Stage 1 Turbine Rotor Disc cracking, Malaysia.  
GE 9FA - Stage 1 Turbine Rotor Disc cracking, Malaysia.  
GE 9FA - Stage 1 Turbine Rotor Disc cracking, Thailand.  
GE 9FA - Stage 1 Turbine Rotor Disc cracking, Thailand.  
GE 9FA - Stages 1 and 2 Turbine Rotor Disc cracking, Thailand.  
GE 9FA - Stage 1 Turbine Rotor Blade failure, Malaysia.  
GE 9FA - Stage 2 Turbine blade failure, Thailand.  
GE 9FA - Stage 2 & 3 Turbine blade failures, Thailand.  
GE 9FA - Domestic object damage to turbine blades, Thailand.  
GE 9FA - Misalignment of single shaft combined cycle plant, Malaysia.  
GE 9FA - Impact damage to turbine due to shroud block failure, Hong Kong.  
Mitsubishi 701F4 - Hot section blade failure, Bangladesh.  
Mitsubishi 701F3 - Impact damage to turbine rotor during maintenance, Singapore.  
Mitsubishi 701F - Fuel Gas Contamination to 6 engines, Thailand.  
Mitsubishi 701F - Impact to turbine blades from combustion can failure, Thailand.  
Mitsubishi 701F - Impact to turbine blades from Transition piece failure, Thailand.

Mitsubishi 701F - Rotor cracking and turbine blade rubbing, Thailand.  
Mitsubishi 701F - Water injection system pipe failure, Thailand.  
Mitsubishi 701D1 - Erosion and impact damage to hot section, Thailand.  
Mitsubishi 701D1 - Hot section blade coating failure, Thailand.  
Mitsubishi 501G - Impact damage during transportation, USA.  
Mitsubishi 501G – Compressor R2 blade failure, Philippines.  
Alstom GT13E2 – Severe impact and contact damage to compressor & turbine, Indonesia.  
Alstom GT13E2 – Severe impact to turbine hot section, Malaysia.  
Alstom GT13E2 - Impact to turbine blading from combustion system failure, Malaysia.  
Alstom GT13E2 - Impact to turbine blading from combustion system failure, Malaysia.  
Alstom GT13E2 - Impact to turbine blading from combustion system failure, Malaysia.  
Alstom GT13E2 - Impact to turbine rotor blades from stator vane failure, Malaysia.  
Alstom GT13E2 - Impact to turbine rotor blades from stator vane failure, Malaysia.  
Alstom GT13E2 - Compressor damage from stage 4 stator vane failure, Malaysia.  
Alstom GT13E2 - Impact to turbine rotor blades from stator vane failure, Malaysia.  
Alstom GT13E2 - Impact to turbine blading from combustion system failure, Indonesia.  
Alstom GT13E2 - Compressor rotor cracking, Malaysia.  
Alstom GT13E2 - Tip cracking of stage 1 rotor blades, Malaysia.  
Alstom GT13E1 - Impact to turbine blading from combustor failure, Malaysia.  
Alstom GT13E1 - Impact to turbine blading from combustor failure, Indonesia.  
Alstom GT13E1 - Impact to turbine blading from combustor failure, Indonesia.  
Alstom GT13E1 - Impact to turbine blading from combustor failure, Indonesia.  
Siemens V94.3A2 - Compressor failure, Malaysia.  
Siemens V94.2 - Impact damage to turbine blading from combustor failure, Indonesia.  
Siemens V94.2 - Gas turbine hot section failure, Pakistan.  
Siemens V94.2 - Inner casing cracking, Pakistan.  
Siemens V94.2 - Hot section damage, Bangladesh  
Siemens V94.2 - Hot section damage, Bangladesh  
GE 7FA - Impact damage during transport, Saudi Arabia.  
GE 7FA - Compressor stage 4 vane failure, South Korea.  
GE 9E - Compressor FOD to 2 engines, Malaysia.  
GE 9E - Compressor stage 7 blade failure, Malaysia.  
GE 9E - Compressor blade and vane failure, Malaysia.  
GE 9E - Turbine stage 3 blade failure, Indonesia.  
GE 9E - Turbine stage 3 blade failure, Indonesia.  
GE 9E - Turbine stage 3 blade failure, India.  
GE 9E - Auxiliaries enclosure fire, Malaysia.  
GE 9E - Compressor stage 17 disc cracking, Malaysia.  
GE 9E - Compressor stage 17 disc cracking, China.  
GE 9E - Theft of hot section components, Malaysia.  
GE 9E - Damage to combustion system from fuel nozzle leakage, Pakistan.  
GE 9E - Damage to hot section from combustion system failure, fuel nozzle leakage, Pakistan.

GE 6FA - Compressor damage due to lubricating oil system failure, Pakistan.

GE 6FA - Compressor stage 5 stator vane failure, Malaysia.

GE 6FA - Compressor stage 5 stator vane failure, Pakistan.

GE 6FA - Compressor stage 5 stator vane failure, Pakistan.

GE 6FA - Compressor stage 5 stator vane failure, Pakistan.

GE 6FA - Compressor row zero blade failure, Pakistan.

GE 6FA - Compressor FOD, Vietnam.

Siemens SGT1000 (V64.3A) - Loss of Lubrication from DC power failure, Indonesia.

Siemens V64.3 – Compressor impact damage, Thailand.

Siemens W125B1 - Catastrophic Stage 1 Turbine Blade/Vane failure, Korea.

GE 7B - Compressor 1<sup>st</sup> stage blade failure, Indonesia.

GE 6B - Compressor fouling damage to 4 engines, Malaysia.

GE 6B - Compressor 1<sup>st</sup> row disc failure, Malaysia.

GE 6B - Compressor discharge casing cracking, Malaysia.

GE 6B - Compressor blade failure, Malaysia.

GE 6B - Compressor 1<sup>st</sup> stage blade failure, Brunei.

GE 6B - Compressor blade failure, Bangladesh.

GE 6B - Load coupling failure, Thailand.

GE 6B - Load coupling failure, Thailand.

GE 6B - Load coupling failure and fire, Thailand.

GE 6B - Compressor Foreign Object Damage, Malaysia.

GE 6B - Gearbox failure, Malaysia.

GE 6B - Turbine 1<sup>st</sup> stage blade failure, Oman.

GE 6B - Compressor impact damage, Malaysia.

Alstom GT8C - Fuel Gas contamination damage to hot section, Czech Republic.

Alstom GT8C - Foreign Object Damage to Turbine section, Indonesia.

Alstom GT8C - Failure of refurbished stage 3 turbine blades, Indonesia.

Alstom GT8C - Hot section failure, Thailand.

GE LM6000 - Flood damage to 5 engines in combined cycle, plus balance of plant, Thailand.

GE LM6000 - Contamination damage to Hot Gas Path, 2 engines, Indonesia.

GE LM6000 - Hot section failure (total loss), Indonesia.

GE LM6000 - Surge damage following 100% load rejection test failure, Thailand.

GE LM6000 - Bearing failure, Indonesia.

GE LM6000 - Accessories Gearbox failure, Thailand.

GE LM6000 - Lubrication oil leakage in High Pressure Compressor, Thailand.

GE LM6000 - Lubrication oil leakage following coupling failure, Thailand.

GE LM6000 - Impact damage to hot section due to valve failure, Thailand.

GE LM6000 - Impact damage to hot section due to valve failure, Thailand.

GE LM6000 - Compressor Impact damage due to bearing failure, Thailand.

GE LM6000 - Compressor Impact damage due to bushing failure, Indonesia.

GE LM6000 - Compressor Impact damage, Kuwait.

GE LM6000 - Blade erosion due to coating failure, Thailand.

GE LM6000 - Hot section failure, Indonesia.  
GE LM6000 - Compressor Impact damage due to blade failure, Myanmar.  
GE LM6000 – LP rotor shaft rupture, Myanmar.  
GE LM6000 - Hot section failure, Pakistan.  
Rolls Royce RB211 – Power Turbine failure, Indonesia.  
Rolls Royce RB211 - Fuel Gas Contamination, Thailand.  
Rolls Royce RB211 - Starter system damage from commissioning error, Thailand.  
Rolls Royce RB211 - Starting system seizure, Thailand.  
Rolls Royce RB211 - Oil leakage and fire due to commissioning error, Thailand.  
Rolls Royce Avon - Air filter collapse, Indonesia.  
Rolls Royce Avon - Gas Generator Hot section failure, Thailand.  
GE LM2500+ - Domestic object damage to HSPT, Israel.  
GE LM2500+ - Domestic object damage to HSPT, Israel.  
GE LM2500+ - Alignment bolt failure in HSPT, Israel.  
GE LM2500 - Severe damage from bearing failure, Brunei.  
GE LM2500 - Bearing failure, Indonesia.  
GE LM2500 - FOD, Malaysia  
GE LM2500 – Compressor 1<sup>st</sup> stage blade failure, Malaysia.  
GE LM1600 - Rotor shaft fracture leading to destruction of engine, Spain  
GE LM1600 - Rotor shaft fracture leading to destruction of engine, Spain.  
GE LM1600 - Rotor shaft fracture leading to destruction of engine, Spain.  
GE LM1600 - Compressor surge damage due to exhaust system blockage, Spain.  
GE LM1600 - Hot gas path blockage by airborne contamination, Spain.  
Siemens SGT800 - Catastrophic rotor fracture, South Korea.  
Siemens SGT800 - Rotor cracking, South Korea.  
Siemens SGT800 - Compressor failure, Turkey.  
Siemens SGT600 - Compressor Turbine blade failure, Saudi Arabia.  
Siemens SGT600 - Power Turbine blade failure, Saudi Arabia.  
Siemens SGT600 - Compressor first stage blade failure, Malaysia.  
Siemens SGT600 - Compressor first stage blade failure, Malaysia.  
Siemens SGT600 - Compressor Turbine blade failure, Tanzania.  
Siemens SGT400 - Impact damage to hot section due to blade failure, Thailand.  
Siemens SGT200 - Hot Gas path damage from injection water contamination, England.  
Siemens SGT200 - Hot Gas path failure, India.  
Solar Titan - Hot section failure, Indonesia.  
Solar Taurus - Compressor stator vane failure, Thailand.  
Solar Taurus - Compressor rotor blade failure, Thailand.  
Solar Taurus - Gearbox failure, Thailand.

## **Other Power Generation Experience**

Catastrophic damage to 2 x 50MW & 1 x 100MW Generators, DC power failure, North Korea.  
2 x 110MW Steam turbine failure due to DC power failure, Malaysia.  
1050 MW Mitsubishi-Hitachi Steam Turbine last stage blade failure, Korea.  
750MW Toshiba Steam Turbine – blade failure following from overheating, Malaysia.  
600MW Toshiba electrical generator rotor cracking, Vietnam.  
500MW Turbine & Generator damage due to DC power failure, Malaysia.  
500MW Turbine & Generator damage due to AC & DC power failure, Malaysia.  
500MW GE/Doosan Steam Turbine – Blade failure, Korea.  
500MW GE Steam Turbine, vibration damage, Malaysia.  
500MW GE/Doosan Steam Turbine contamination, Vietnam.  
530MVA Alstom Electrical Generator back energisation, Singapore.  
500MW GE Electrical Generator back energisation, Philippines.  
345MW Alstom Steam turbine rotor seizure, Saudi Arabia.  
300MW MHI Steam turbine, blade failure in HP turbine, Malaysia.  
300MW MHI Steam turbine, blade failure in LP turbine, Malaysia.  
280MW Hydroturbine generator short circuit and fire, Thailand.  
280MW Hydroturbine generator short circuit and fire, Thailand.  
250MW GE Steam Turbine – casing cracking in 3 machines, Thailand.  
250MW Siemens Steam Turbine – Severe damage from lubricating oil failure, Thailand.  
250MW Toshiba Steam Turbine, Heavy rubbing from axial displacement, Malaysia.  
250MW MHI Steam Turbine, Light rubbing from thermal shock, Thailand.  
250MW GE Steam Turbine, Overspeed, Kingdom of Saudi Arabia.  
210MVA Alstom Generator, Stator winding major fault, Indonesia.  
210MVA Alstom Generator, Stator winding major fault, Malaysia.  
200MW Steam Turbine - Fire due to lubrication oil leak, Taiwan.  
180MW Hydroturbine Generator rotor failure, Philippines.  
175MVA Ansaldo Electrical Generator - stator failure, Bangladesh.  
165MVA Fuji Electric Generator - rotor insulation failure, Bangladesh.  
160MW Steam Turbine - Liberation of two last stage turbine blades, Vietnam  
150MW GE Steam Turbine & Generator – multiple shaft failure & total destruction, S.Korea.  
150MW Harbin Steam Turbine - Rotor cracking, Philippines.  
118MW Franco Tosi Steam Turbine & Generator, multiple shaft fracture, Saudi Arabia.  
110MW GE Steam Turbine - Rotor bending due to barring failure, thermal shock, Malaysia  
110MW GE Generator destruction due to switchgear failure, Indonesia.  
100MW Parsons Steam Turbine - Severe corrosion following condenser leakage, Singapore.  
65MW Hydro-turbine generator pole failure and stator damage, Indonesia.  
60MW Siemens steam turbine oil system failure, China.  
55MW Alstom steam turbine generator - Overspeed, Thailand.  
55MW Ansaldo steam turbine - Blade failure, Philippines.  
50MW Siemens Steam Turbine - Impact and rubbing damage, Thailand.  
50MW Alstom Steam Turbine - Complete blade stage liberation due to casing failure, Spain.

50MW Russian Generator - End ring fracture, North Korea.  
50MW Russian Steam Turbine failure - North Korea.  
45MW Hydroturbine generator - rotor cracking and other failures, 2 machines, Nepal.  
42MW Pelton wheel failures - 2 Turbines, Vietnam.  
40 MW GE (Alstom) Steam Turbine rubbing, Thailand  
37MW MHI Steam Turbine and Generator - Overspeed due to controls failure, Indonesia.  
37MW MHI Steam Turbine and Generator - Rotor damage due to DC failure, Malaysia.  
35MW Generator - damage from exciter failure, Malaysia.  
35MW SGP Steam Turbine – Blade failure following rotor to stator contact, Thailand.  
35MW NG Steam Turbine overspeed, Malaysia.  
3 x 30MW Generator rotor failures from contamination & transport damage, Cuba.  
30MW Alstom Steam Turbine - Catastrophic overspeed failure, Philippines.  
30MW Alstom Steam Turbine - Rotor bending due to thermal shock, Thailand.  
27MW Shin Nippon Steam Turbine - Lubrication failure, Vietnam.  
24MW MAN Steam Turbine & compressor corrosion, Vietnam.  
21MW EKOL Steam Turbine and Generator - rotor damage due to DC failure, Thailand.  
18MW MHI Steam Turbine Generator, Catastrophic overspeed, Malaysia.  
16MW Skoda Steam Turbine Generator, Catastrophic overspeed, Thailand.  
14MW Shin Nippon steam turbine, rotor damage due to water carryover, Malaysia.  
12 MW Triveni steam turbine failure and fire, India.  
11MW NG Metallurgica steam turbine, rotor bending due to thermal shock, Malaysia.  
11MW NG Metallurgica steam turbine, impact damage from debris ingestion, Malaysia.  
6MW Qingdao steam turbine overspeed, Thailand  
3MW Steam Turbine disc rupture and catastrophic failure, Thailand  
2MW Elliott Steam Turbine oil system failure, Indonesia  
1.5 MW GE Thermodyn Steam turbine corrosion, Vietnam.  
Small steam turbine rotor cracking & failure, Malaysia.  
Steam Turbine overspeed, Vietnam.

Flue Gas Desulphurisation plant fire, Thailand.  
Steam pipe explosion at Nuclear plant, Japan.  
Fuel loading machine failure at Nuclear plant, South Korea.  
Black Start generator failure due to Malsynchronisation, Malaysia.  
Boiler structure deformation, Pakistan.  
Rotating preheater failure, Philippines.  
Blast furnace CCPP axial compressor failure, Korea.  
Bypass steam pipe collapse (x 2), Vietnam.