

Metaldyne Viscous Dampers

Formerly Simpson/Holset Viscous Dampers

Some of the engine manufacturers supplied as follows:

- Alpha Diesel/M.A.N./B&W/Holeby
- Bergen Diesel (Rolls Royce)
- Bolnes
- Baudouin
- Cegielski Sulzer
- Crepelle
- Cummins
- Dorman
- Daewoo
- Deutz (Barreras)
- Fincantieri (GMT)
- Fiat
- Goterverken
- Hyundai
- Mak
- Mitsui
- Nohab
- Ruston
- Paxman
- SWD (Stork)
- Sulzer (I.H.I)
- Ssangyong
- W. H. Allen
- Waukesha
- Wartsila Group (Wartsila S.A.C.M.)

M.A.N. Group:
Ruston/Paxman/Mirrlees.

metaldyne

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Metaldyne International (UK) Ltd

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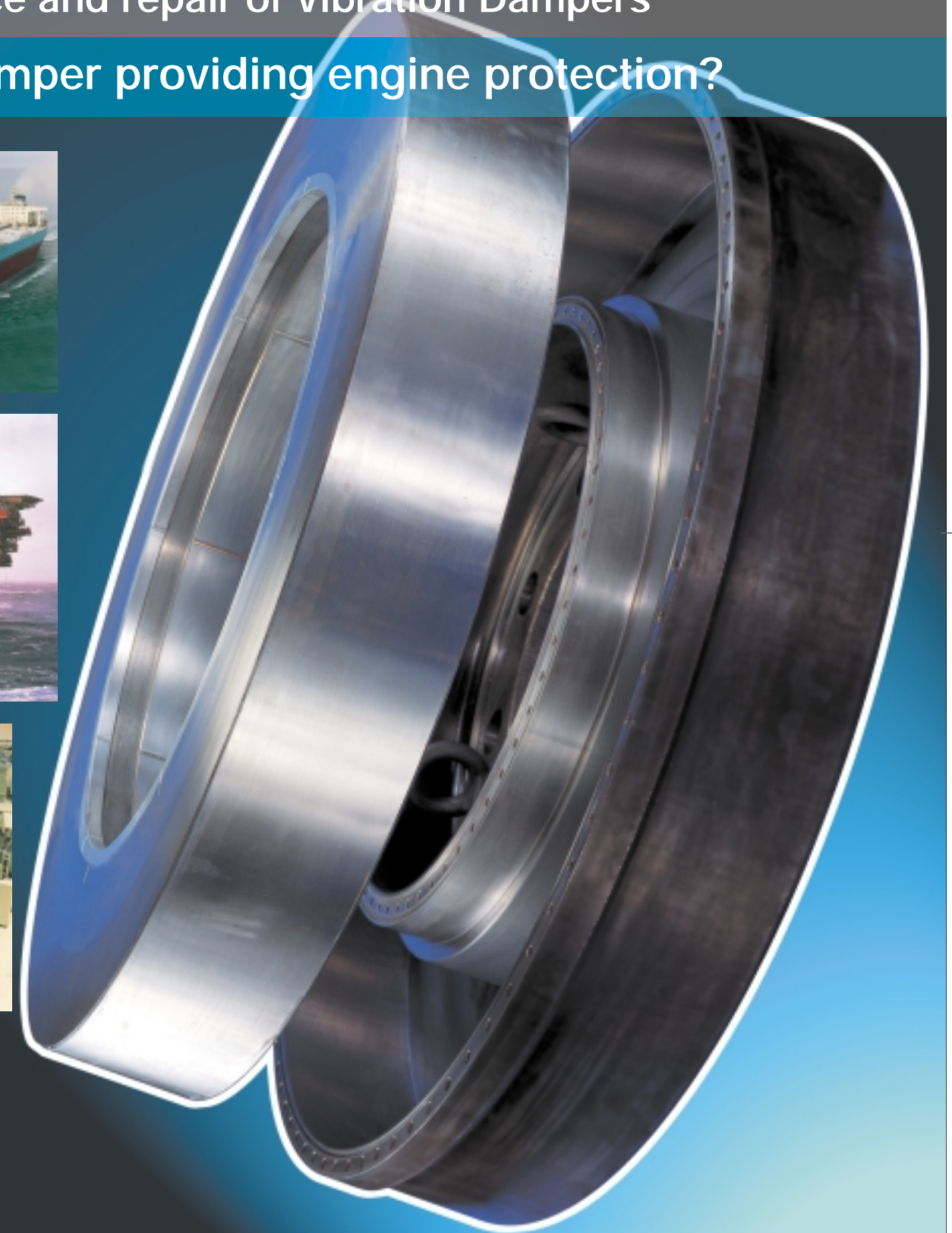
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METALDYNE INTERNATIONAL (UK) LTD

Maintenance and repair of Vibration Dampers

Is your damper providing engine protection?



FORMERLY **SIMPSON INDUSTRIES**

HOLSET

metaldyne the most comprehensive protection for your investment

METALDYNE INTERNATIONAL (UK) LTD

Torsional Vibration Dampers

- **Systematic Fluid Sampling** provides early warning of damper failure
- **Maintenance** saves cost of replacement and down time
- **Service** minimises long term running costs

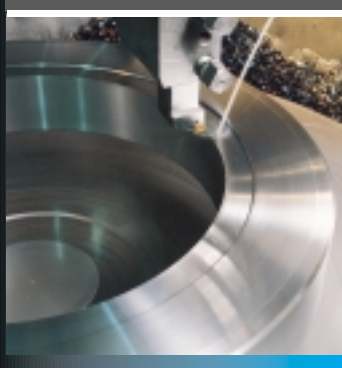


1 Damper failure resulting from lack of sample analysis. Even up to this point, it can be possible to effect repair using Metaldyne's expertise. The damper will be stripped and cleaned.

2 Measuring journal wear to assess damage for technical report and subsequent repair.



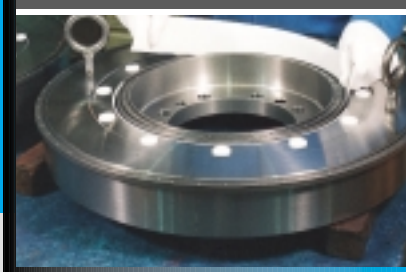
3 Machining inertia ring to remove bearing damage and to prepare a perfect surface that will ensure optimum damper performance.



4 Re-machining of internal damage on the casing.



5 Re-assembly, using technically superior material which will greatly extend the operating life of the damper.



6 Pressure and vacuum testing to accurately calculate the volume of silicone fluid required to compensate for fluid expansion during operation.



7 The damper is now totally reconditioned and meets the latest technical specification. It is effectively, as new.



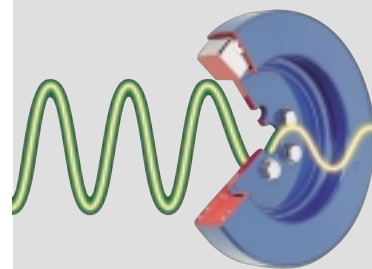
- **In-house servicing of dampers up to 1500mm diameter.**
- **On-site servicing worldwide for dampers over 1500mm diameter.**
- **Emergency service, 7 days a week.**
- **Emergency overhaul within 24 hours.**
- **Re-conditioned dampers can be certified for Classification Societies on request.**

Metaldyne has over 30 years' experience in the field of damper service

and provides the most comprehensive service for all makes and types. The Company has been assessed and approved by Lloyds to the International Quality Assurance Standard ISO 9001.

Our team of technical experts offers advice and help, and will be delighted to discuss your project.

The viscosity of silicone fluid is determined by the chain length of the thread like molecule. Under adverse conditions, silicone fluid inside the damper tears into smaller chain lengths, leading to a change in viscosity, damping ability and operating efficiency of the unit.



Sampling

- Regular sampling is the most cost-effective means of ensuring the operating efficiency of your dampers and, therefore, engine protection
- Expert analysis of a small volume of fluid taken from the damper, in situ, will indicate the internal mechanical condition of the sealed unit
- For a small charge, Metaldyne provides Sampling Kits for this purpose, with instructions for use
- On receipt of the returned sample, laboratory analysis will highlight the fluid viscosity and operating efficiency of the unit
- It is recommended that a fluid sample is taken after the first 15,000-18,000 service hours.

Normally within 24 hours a report will detail the results of the analysis, with recommendations:
 a) the present condition, b) prognosis of safe service life, or c) action to be taken on a defective unit.



Chemical structure of silicone fluid

Dimethyl Polysiloxane, with unbranched chains alternately structured from successive silicone and oxygen atoms saturated with methyl groups

