

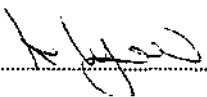
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| Ref   | NR/SP/ELP/27234 |
| Issue | I               |
| Date  | December 2005   |

# Business Process Document

## Specification for design and maintenance of hydraulic fluid power systems

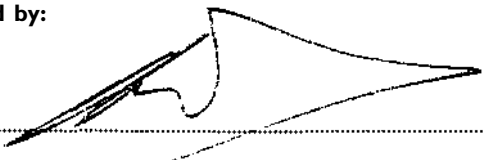
### Endorsement & Authorisation

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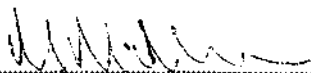
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## Issue record

| Issue | Date          | Comments     |
|-------|---------------|--------------|
| I     | December 2005 | New standard |

## Implementation

3 December 2005

## Compliance

This Network Rail specification is mandatory and must be complied with by Network Rail and its contractors from 3 December 2005.

When this specification is implemented, it is permissible for all projects, which have formally completed GRIP Level 4, to continue to comply with the Issue of any relevant Network Rail standards current when GRIP Level 4 was reached and not to comply with requirements contained herein unless the head of electrification and fixed plant has stipulated otherwise in the accompanying briefing note.

Where the head of electrification and fixed plant has specified that all projects will comply with the requirements, specific authority not to comply can be sought in the usual manner using the appropriate non-compliance authority processes described in Network Rail standard, [NR/SP/STP/045](#) Managing the process for non-compliance authority (formerly RT/LS/P/045).

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## I Purpose

This specification has been prepared to control the design and maintenance of hydraulic fluid power systems.

## 2 Scope

This Specification provides recommendations relating to hydraulic systems on plant and machinery. It is intended to augment [B.S.4575](#): Part I and covers in

**PART A** General and safety requirements to be considered during specification, design and maintenance of hydraulic systems.

**PART B** Particular details to be considered during the SPECIFICATION stage of a hydraulic systems project.

Compliance is not required where the hydraulic system is a “standard” system, ie. it is totally or part of a proprietary piece of equipment, it is recognised that compliance with [B.S. 4575](#): Part I shall be the accepted standard.

## 3 Reference documentation

- |                           |                                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">B.S. 3832</a> | Wire reinforced rubber hoses and hose assemblies for hydraulic installations.                                                                                                                                                                                           |
| <a href="#">B.S. 4575</a> | Fluid power transmission and control systems.<br>Part I Guide for hydraulic equipment and systems.<br>Part 3 Code of Practice for the technical specification, design, construction, commissioning and safe application of hydraulic and pneumatic fluid power systems. |
| <a href="#">B.S. 4641</a> | Electroplated coatings of chromium for engineering purposes.                                                                                                                                                                                                            |
| <a href="#">B.S. 5244</a> | Application, storage and life expiry of hydraulic rubber hoses and hose assemblies.                                                                                                                                                                                     |
| <a href="#">B.S. 5440</a> | Evaluating particle contamination of hydraulic fluids.<br>Part 4 Method of defining levels of contamination (solid contaminant code). Equivalent to ISO/DIA 4406                                                                                                        |
| <a href="#">B.S. 6275</a> | Hydraulic fluid power filter elements.<br>Part I Method of evaluating filtration performance (Multi-Pass method). Identical to ISO 4572.                                                                                                                                |
| <a href="#">B.S. 6327</a> | Specification for fire protection of reciprocating internal combustion engines.                                                                                                                                                                                         |