
Kalmar Group Standard

KGS 20401

Part

Group

Base Standard

Quality and Environmental of Products

Name

Traceability of Components

1 Scope

This Kalmar Group Standard, hereinafter referred to as KGS, specifies specially selected components that require traceability. The requirements are due to regulatory compliance, product recall, safety, and/or warranty related character.

2 Purpose

The purpose of this standard is to define the components that require traceability..

3 Responsibilities

The ownership within Kalmar that determines which components of the machine that shall be included in this KGS is determined by for:

CB: Chief Engineers at R&D and Head of Product Quality and Quality reclaiming

TT: Chief Engineers at R&D, Director - Service Sales at Product support and
Quality Manager, QEHS

The Product Safety & Standards function in both product lines is responsible to monitor updates and changes to, for example, new technical solutions, new requirements, etc.

4 Definitions

CB - Counter Balanced

TT - Terminal Tractors

QEHS - Quality, Environment, Health and Safety

R&D - Research and Development

5 Records / References / Attachments

KGS 10302 Kalmar machine component structure

2006/42/EC Machinery Directive 1.7.4.2 - section (t)

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6 Procedure Description / Requirements

For component classification see KGS 10302

0	COMPLETE MACHINE
1	ENGINE
2	TRANSMISSION
3	DRIVELINE / AXLE
4	BRAKES
5	STEERING
6	SUSPENSION
7	LOAD HANDLING
8	CONTROL SYSTEM
9	FRAME, BODY, CAB and ACCESSORIES
10	COMMON HYDRAULICS
11	COMMON ELECTRICS
12	COMMON PNEUMATICS

0 COMPLETE MACHINE

1 ENGINE

1.0 ENGINE

Engine (Serial no)

1.2 FUEL SYSTEM

2 TRANSMISSION

2.0 TRANSMISSION

Transmission (Serial.no)

2.8 TRANSMISSION CONTROL SYSTEM

Transmission Control Unit (TCU) (Serial. no)

3 DRIVELINE / AXLE

3.3 DRIVE AXLE

Drive axle (Serial. no)

3.6 ELECTRICAL DRIVE

Motor (Serial. no)

Inverter (Serial. no)

4 BRAKES

4.3 POWER ASSISTED BRAKE SYSTEM

Electro-hydraulic brake valve (Serial no / Batch no)

Brake Valve (Serial. no)

4.5 PARKING BRAKE SYSTEM

Electro-hydraulic brake valve (Serial no / Batch no)

5 STEERING

5.1 CONTROLS AND INSTRUMENTS

5.2 POWER ASSISTED SYSTEMS

Steering valve (Orbitrol) (Serial. no)
Steering valve including priority valve (Serial.no)
Steering axle (Serial. no)
Steering cylinder (Serial. no)
Steering Knuckle (Serial. no)
Steering Gear (Serial. no)
Hub (Serial. no)

6 SUSPENSION

6.3 TYRES AND RIMS

Tire (Serial no and/or Batch/Lot no) (when required: certified tires)
Rim (Serial no / Batch no)

7 LOAD HANDLING

7.1 CONTROLS AND INSTRUMENTS

7.2 LIFTING / LOWERING

Mast, Carriage, Lifting boom (Serial no)
Lifting cylinder including lowering check valve (Serial no)
Separate lowering check valve (FLT) (Serial no)
Valve plate lift (blockage valve lift-cylinder) (RST, RIH) (Serial no)
Main valve Load handling (Serial no)
Lifting chains (Cert)
Chain tensioner (Serial no/Batch no)

7.3 EXTENSION

Extension cylinder (Serial no)
Valve block extension (RST, RIH) (Serial no)

7.6 ROTATION

Rotation motor unit (Serial no)

7.7 TILT

Tilt cylinder (Serial. no)

7.9 LOAD CARRIER

Twist lock and Nut, Lifting hook, Lifting shoe, Fork arms, Fork shaft system (Serial no)
Attachment (Serial no) + Declaration of Conformity
Fifth wheel including lift boom installation (Serial no)

7.10 OTHER FUNCTIONS

Boom noose extension (Serial no)

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8 CONTROL SYSTEM

9 FRAME, BODY, CAB AND ACCESSORIES

9.2 SAFETY AND EMERGENCY EQUIPMENT

Diesel Machine: Operating switch (for hydraulic function)

Electrical machine: Emergency stop

9.10 CAB STRUCTURE AND SUSPENSION

Cab frame (Serial no)

Hydraulic cylinder, cab tilt, cab shifting, Cab raising (Serial no)

9.12 FRAME

Frame (Serial no)

Elevated tilt frame (Serial no)

9.13 BODY

Lifting eyes (Serial no)

10 COMMON HYDRAULICS

10.3 TANKS AND ACCUMULATORS

Accumulator (Serial no)

10.5 HOSES, PIPES AND VALVES

Tilt, and Twist lock valve (Serial no)

Accumulator charging valve (Serial no)

Steering valve hydraulic servo (Serial no)

10.7 AUXILIARIES

Motors (Serial no) (e.g. steering, accumulator charging)

Inverters (Serial no) (e.g. steering, accumulator charging)

10.8 COMMON HYDRAULICS CONTROL SYSTEM

Motors (Serial no) (e.g. lift, tilt, extension)

Inverters (Serial no) (e.g. lift, tilt, extension)

11 COMMON ELECTRICS

11.3 BATTERIES

Lithium battery (Serial no)

11.5 DISTRIBUTION OF ELECTRICITY

All electrical Control Units (ECU's) (Serial no)

11.7 FUEL CELL

11.9 BATTERIES CONTROL SYSTEM

ECU Battery: Battery Monitoring System (BMS) (Serial no)

12 COMMON PNEUMATICS
