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Road construction and road maintenance machinery and equipment — Basic types — Identification and description

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National foreword

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Road construction and road maintenance machinery and equipment — Basic types — Identification and description

*Machines et matériels pour la construction et l'entretien des routes —
Principaux types — Dénomination et description*



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Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22242 was prepared by Technical Committee ISO/TC 195, *Building construction machinery and equipment*.

Introduction

A whole range and many different types of machinery are needed for building and maintaining traffic routes, roads, highways, runways, aprons, etc. These can be divided into the following main groups, falling within the particular scopes of ISO Technical Committees.

— Tractors and machinery for agriculture and forestry (ISO/TC 23)

EXAMPLE Brush-cutters and brush saws, log loaders, portable chain saws, branches-shredders, drainage pipe layers, digger ploughs and other machines defined in ISO 3339.

— Earth-moving machinery (ISO/TC 127)

EXAMPLE Excavators, tractor dozers, scrapers, loaders, dumpers, trenchers, graders, rollers and other machines defined in ISO 6165, ISO 6747, ISO 7131, ISO 7132, ISO 7133, ISO 7134 and ISO 8811.

— Building construction machinery and equipment (ISO/TC 195)

EXAMPLE Formworks, drum mixers, machines and equipment for concrete-mix production, truck concrete mixers and concrete transport skips, concrete pumps, vibrating beams, floating machines, concrete vacuum treatment units, core drilling units,  vibratory plates, rammers  and other machines defined in ISO 11375.

— General-use machinery and equipment

EXAMPLE Power tools such as hammers, industrial vacuum cleaners, blowers, water pumps, portable chain saws, liquid gas heating units, infrared heaters.

— Machines and equipment designed especially for road construction and maintenance (ISO/TC 195).

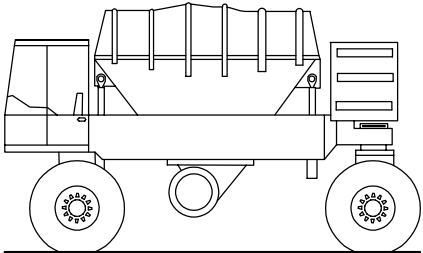
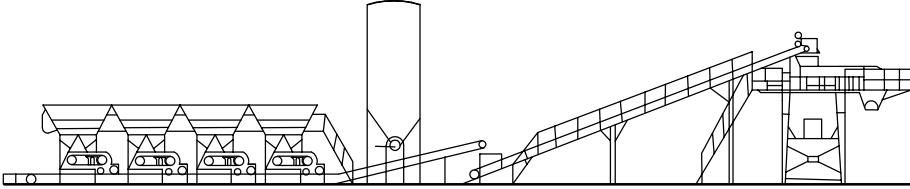
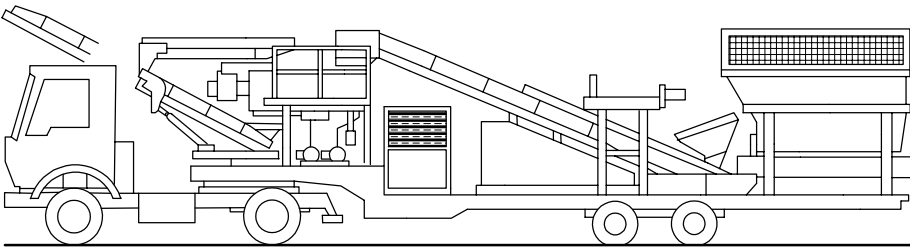
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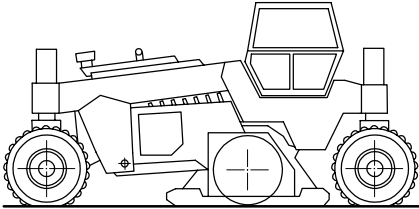
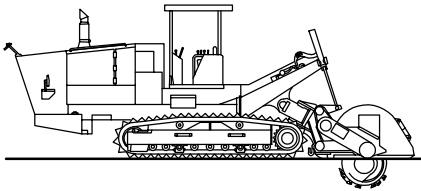
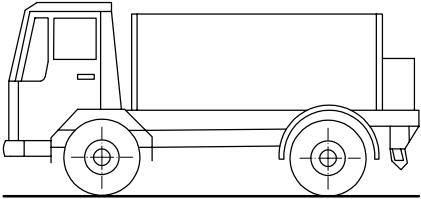
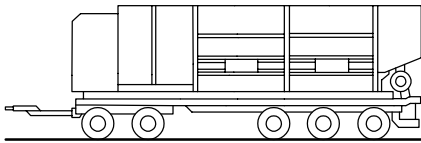
Road construction and road maintenance machinery and equipment — Basic types — Identification and description

1 Scope

This International Standard identifies and describes machinery and equipment used in the construction and maintenance of traffic routes, roads, highways, runways, aprons, etc. It is applicable to those specialized machines/equipment intended for pavement construction and road maintenance. It does not define terms, and its figures represent a general view or outline.

2 Machines and equipment for road construction and maintenance

Term	Identification/Description	
2.1 Soil stabilization machinery and equipment	These are used to improve the mechanical and physical properties of natural soils. See Figures 1 to 7.	
2.1.1 powder binder spreader	mobile machine intended for steadily spreading filler, cement, lime, etc., to improve the mechanical and physical properties of the soil material NOTE 1 The spreaders are designed so that the output is controlled by travel speed and proportioning devices. NOTE 2 See ISO 15689.	 Figure 1 — Powder binder spreader
2.1.2 soil mix plant	set of equipment intended for mixing fillers and/or binders, e.g. cement, lime, foamed bitumen, asphalt emulsion, with natural soil in order to improve the mechanical and physical properties of the soil material NOTE See Figures 2 and 3.	
2.1.3 stationary soil mix plant	soil mix plant designed for stationary use	 Figure 2 — Stationary soil mix plant
2.1.4 portable soil mix plant	soil mix plant capable for relocation on wheeled chassis	 Figure 3 — Portable soil mix plant

Term	Identification/Description
2.1.5 soil stabilizer	self-propelled machine, towed or transported, with the function of pulverizing, breaking up, aerating, homogenizing and/or loosening existing or imported materials or pavement materials and mixing it/them with one or more added materials (filler, cement, lime, etc.) NOTE 1 A main purpose of the soil stabilizer's use is to improve the mechanical and physical properties of the soil material by mixing it with binders (cement, lime, foamed bitumen, emulsions, etc.) or fillers. NOTE 2 See ISO 15688.  Figure 4 — Wheeled central soil stabilizer with horizontal rotor  Figure 5 — Crawler-based rear soil stabilizer with horizontal rotor
2.1.6 water dispenser	water tank, mounted on truck, semi-trailer or trailer, containing built-in water-spraying unit equipped with spraying bar  Figure 6 — Water dispenser
2.1.7 slurry mixer	mobile machine used to mix and proportion water and cement to a suspension which is directly injected into the mixing chamber of a soil stabilizer NOTE The slurry mixer is either pushed or towed by the soil stabilizer.  Figure 7 — Slurry mixer