

THE WHEEL LOADERS OF THE WA-3 ACTIVE SERIES.

KOMATSU



**PERFECT SOLUTIONS FOR EACH TASK:
THE BEST OF TWO WORLDS.**

active

TASK-RELATED:

**IN MINING, IN RECYCLING OR IN THE QUARRY –
PERFORMANCE AND RELIABILITY AS INTEGRATED
DESIGN FEATURES.**

**When does a series really
become a series?**

While the automobile construction sector can well confine itself to offer a graduated programme from small cars up to heavy limousines, a manufacturer of construction machines must take into account the specific job-related requirements of the widely differing industries. To offer both the quarry operator and the earth-works contractor a machine



which is custom-tailored to each of their tasks.

The WA-3 series is a perfect example for such flexibility as the basic concept of this loader allows for variable requirements.

Graduated performers range and virtual „jack of all trades“.

Due to the variety of sophisticated equipment, the machines of the active series are real all-rounders. Combined with the impressive number of options (see pages 10/11), they turn into perfect specialists for every job on every site.

Reliability and value for money.

Maximum quality, long service life, and extreme load capacity under all operating conditions are as matter-of-course to the wheel loaders of the WA-3 series as are comfort, perfect handling and compatibility with the environment. Thanks to the low maintenance costs, the wheel loaders achieve a high overall efficiency.



QUALITY-RELATED:

**WHERE LEADING CONSTRUCTION MACHINE SPECIALISTS
WORK HAND IN HAND, YOU MAY WELL EXPECT TOP
PERFORMANCE DOWN TO THE LAST DETAIL.**

**International experience,
know-how transfer and
German thoroughness.**

Especially the WA-3 active series is an impressive example for the sensible consolidation of KOMATSU and HANOMAG. Resources of two worlds were combined efficiently to start one of the best wheel loader series. With the construction of wheel loaders up to 24 tons overall weight in the KOMATSU HANOMAG factory in Hanover, the loaders were particularly tuned to the specific conditions of the European market.

**Lost in detail or sensible love
of detail?**

As the saying goes - a chain is no better than her weakest link. Which is why we do not only attach high value to strong, robust axles, frames, lift arms and engines, but closely consider even the smallest cotter pin, the smallest hose clamp.

Our suppliers are "hand picked", the assembler on the production line is responsible for "his" KOMATSU quality, and we prefer to invest in long-term machine testing in advance than incur troublesome complaints later on.

Quality - our word on it.

The ISO 9001 certificate is awarded to those production companies in where operating sequences and materials and production systems guarantee top quality. Which is used no more than the usual business philosophy at KOMATSU HANOMAG. Still we appreciate the official confirmation by a neutral authority.



A large, yellow Komatsu wheel loader arm is shown in a close-up, angled view. The word 'KOMATSU' is printed in large, bold, black letters along the side of the arm. The background is a clear blue sky. The arm is connected to a hydraulic cylinder, and various mechanical components like pins and hoses are visible.



The lift arm is designed for a protected lube fitting arrangement and a central lubrication system which guarantee a safe and durable lubrication.

If you build wheel loaders - you've got to improve every single day.

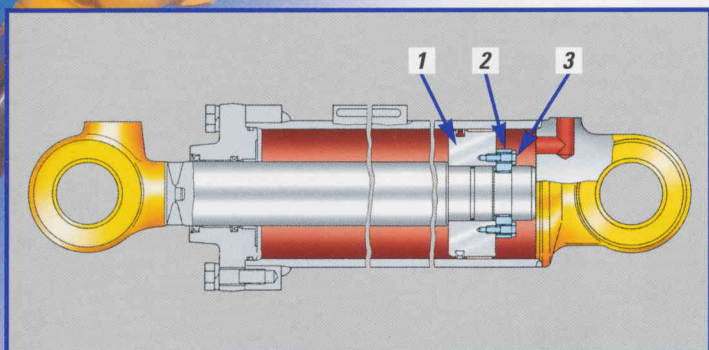
If a 5-star cook allows his job to become a matter of routine his restaurant will soon be no more than any other inn. Whoever designs and builds construction machines must check every day in what way the machine can be improved while closely observing the market and its related requirements and demand.

This is the only way to offer our customers a continuous high

quality standard and to further establish and even expand our position as one of the largest construction machine manufacturers in the world.

Our 7 new models of the "active" series are a landmark on our way to achieve this goal. From the WA180-3 "active" up to the WA470-3 Magnum "active", they stand for environmental compatibility, driver's comfort and the latest state of the art equipment details.

Due to the congenial but simple and well-designed ring groove lock, the Komatsu hydraulic cylinders are easy to disassemble and maintain without special tools.



1 - piston, 2 - snapping,
3 - screws

The state of the art modular structure allows for the logical sequence of all production steps. Production techniques are implemented in accordance with KOMATSU global standards.



PERFORMANCE-RELATED:**IN THE END, ERGONOMY AND COMFORT
DICTATE THE RETURN
ON INVESTMENT.****What is the machine
without man?**

Without man to operate it, even the perfect machine is worth nothing. Therefore, it should be a workplace where the highest possible comfort and perfect ergonomic features are combined to grant easy and safe machine handling. The burden is taken off the driver in a way which allows him to fully concentrate on his job. Moreover, he will take more pleasure in his work and perform more efficiently if he feels at home in his cab.

Which is why the cab is for instance linked to the chassis via hydrobearings, while the transmission floats on rubber buffers and all pipelines and clamps are rubber supported. The result: a pleasantly low interior noise level.

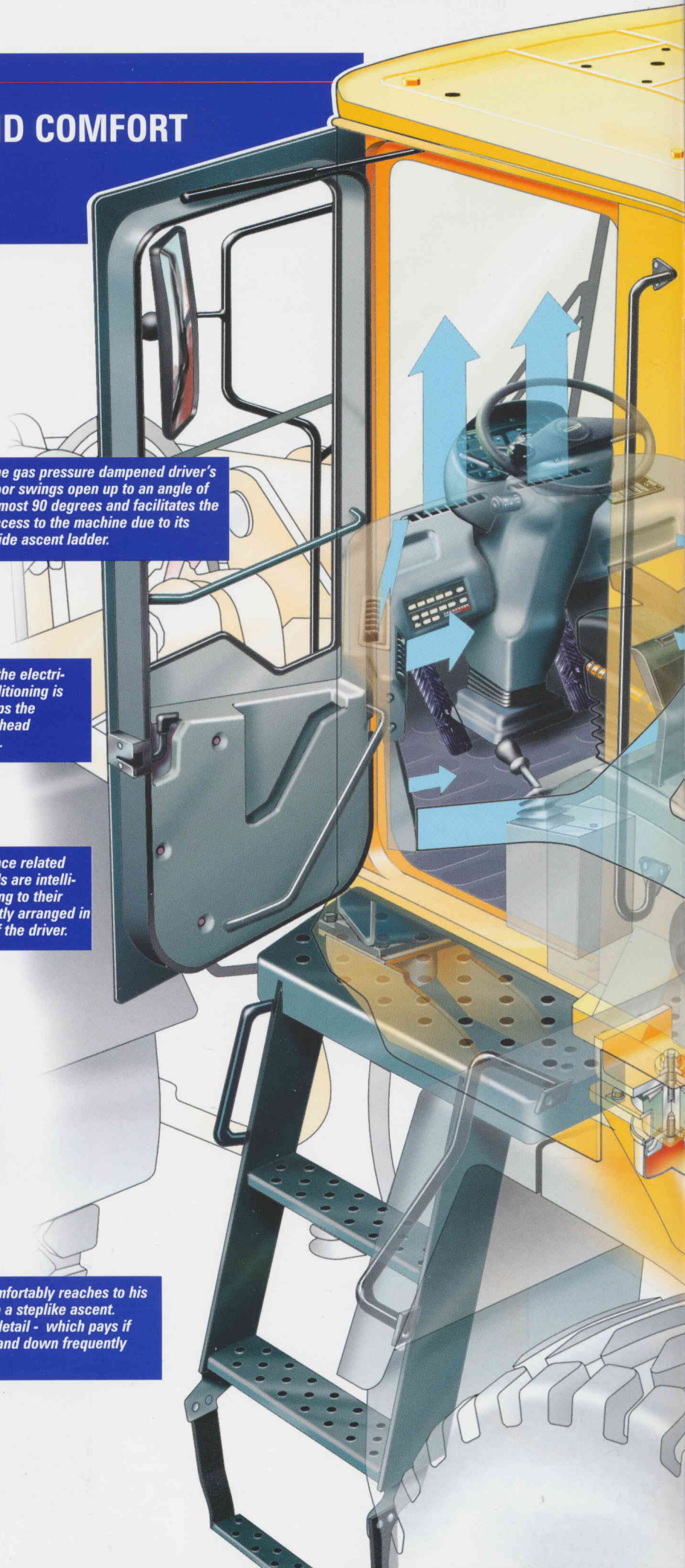
The gas pressure dampened driver's door swings open up to an angle of almost 90 degrees and facilitates the access to the machine due to its wide ascent ladder.

Via touch key controls, the electrically controlled air conditioning is easy to operate and helps the operator to keep a cool head (starting from WA380-3).

All work and maintenance related instruments and controls are intelligently grouped according to their function and conveniently arranged in front of or to the side of the driver.

Logically arranged hand rails simplify both, the ascent and the entry to the machine. An important contribution to the machine's safety.

The driver comfortably reaches his workplace via a steplike ascent. Just another detail - which pays if you climb up and down frequently every day.



Functional and cosy - a symbiosis offered by the new slightly enlarged "active" cab.

Excellent orientation and all-round view even when reversing. The rear window defroster nozzles are linked to the ventilation system.

Whether air circulation or fresh air mode, the driver breathes nothing but filtered air and easily makes his choice via electrical touch buttons.

Perfect interior noise insulation and the use of new hydrobearings restrict the noise level at the driver's ear down to 73 - 75 dB(A) - depending on the model.

The well proven hydrobearings were again improved in their function as "sound and vibration killer".

Main monitor delivering information concerning travelling speed, gearhold and gear selection.

High tech - a link between man and machine and a real cost saver.

The WA-3 wheel loaders come equipped with a driver's cab offering all technical state of the art features and functions which are possible and sensible today. Take for instance the digital main monitor supplying the operator with all information concerning speed and selected gear. Or the EDIMOS II monitor system with memory function immediately notifying the operator of any malfunction. This helps to considerably reduce service time and troubleshooting thus cutting down on costs.

What is more - the driver is supported by features as the ECMV gear modulation allowing the transmission to automatically select the efficient gear - based not only on speed but also depending on load and application.

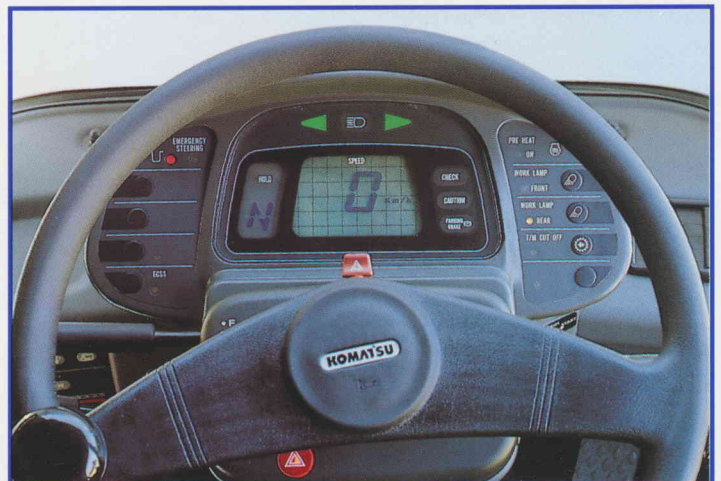
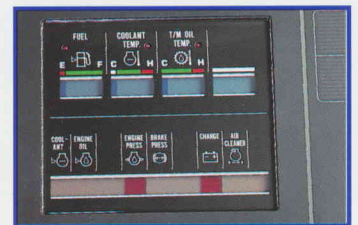
Safety - top on the list.

Rops/Fops cabs and comfortable access to the cab contribute to the active and passive safety as do the free all-round view or automatic transmission and kick-down system. The more work the machine saves the driver the more safely he will master his job.

Simple service - a MUST

All maintenance areas of the WA wheel loaders are easily accessible. Whether you take the integrated engine access doors or the maintenance points for filling up hydraulic engine oil. As highly qualified as the machine may be in technical terms - service remains easy and simple.

EDIMOS II:
More safety due to the control monitor with error memory function.



FOR EACH TASK A CUSTOM TAILORED MACHINE.

WA180 active

Engine: 5.9 l
Komatsu S6D102E
Engine Power: 82 kW/112 hp
Operating weight: 8.9 tons
Tipping load (0°): 7,600 kg
Stand. bucket vol.: 1.6 m³



Compact and powerful - the industrial master. If you expect the same quality and long life from the compact class as you do from the "big ones" - there is only one choice: the WA180-3. With its rigid overall structure and above-average tipping load, it easily moves even heavy loads. Due to its extremely compact design, however, nothing can stop it even in restricted places.

WA270 active

Engine: 5.9 l
Komatsu S6D102E
Engine Power: 104 kW/141 hp
Operating weight: 12.4 tons
Tipping load (0°): 9,800 kg
Stand. bucket vol.: 2.1 m³



Earthwork - simple as that. The dump angle is designed in a way that the bucket will be emptied completely even when moving cohesive material. The dumping height of up to 2.9 m³ is one of the best in this loader class and makes the machine the ideal tool for the loading of compost, feeding hoppers or as stand-by machine for larger loading machines.

WA320 active

Engine: 8.3 l
Komatsu S6D112E
Engine Power: 124 kW/168 hp
Operating weight: 13.8 tons
Tipping load (0°): 11,700 kg
Stand. bucket vol.: 2.6 m³



Performance - even in the most restricted places. If you need maximum performance for jobs in extremely restricted areas, as for instance in recycling applications, the WA320-3 is in its element. The 8.3 liter engine with 168 hp makes it one of the most powerful loaders in its class. The well-known small turning radius of all WA wheel loaders plus the excellent and overall view give unmatched handling all around.

WA380 active

Engine: 8.3 l
Komatsu S6D112E
Engine power: 141 kW/192 hp
Operating weight: 17.8 tons
Tipping load (0°): 14,500 kg
Stand. bucket vol.: 3.1 m³



Load capacity means profit. Wherever material has to be moved - whether in sand and gravel winning, whether in road construction or in mining - the WA380-3 is up to it. Due to its favourable ratio of operating weight and load capacity, it is the most efficient solution when the most versatile job requirements are asked for. WA380-3 - the flexible wheel loader among the WAs.

WA420 active

Engine: 8.3 l
Komatsu SAA6D112E
Engine power: 162 kW/220 hp
Operating weight: 19.8 tons
Tipping load (0°): 15,250 kg
Stand. bucket vol.: 3.6 m³



Compact but sturdy. Industrial jobs - whether in two-shift or three-shift operation, are the world of the WA420-3. Gravel, sand, rubble, earth digging or mining - this wheel loader's philosophy is: performance on seven days a week, 24 hours a day. To achieve this ambitious goal it leans on construction features of the heavy wheel loader class, as for instance fully floating axles and generously engineered transmissions.

WA470 active

Engine: 10.8 l
Cummins M11
Engine power: 202 kW/275 hp
Operating weight: 23.5 tons
Tipping load (0°): 18,300 kg
Stand. bucket vol.: 4.2 m³



Maximum power packed for a long life. The legendary top of the medium-range wheel loader series by Komatsu. The WA470-3 efficiently combines mobility with a maximum of fast speed, power and performance. It sets to work in all places where maximum turnover even under the most severe operating conditions is required. In the quarry - in digging - in recycling.

WA470 MAGNUM active

Engine: 10.8 l
Cummins M11
Engine power: 202 kW/275 hp
Operating weight: 23.9 tons
Tipping load (0°): 17,700 kg
Stand. bucket vol.: 4.6 m³



The incarnation of perfection for all those who aim high. The special field of application of the Magnum is material handling. Combined with the proven construction features of the WA470-3, this machine perfectly combines high loading capacities with an excellent dump height. In rehandling work it requires just four loading cycles to fill large-volume semitrailers.

FOR WORKING IN THE QUARRY – EACH TUNED TO THE HEAVY DUMP TRUCKS OF THE HD CLASS.

It is for good reason that KOMATSU is one of the WORLDWIDE leading specialists in wheel loader construction. Nobody in this world has gained more experience when it comes to wheel loaders than KOMATSU. Whereas our WA series - from the WA180 up to the WA470 MAGNUM - was developed and is produced in Hanover thus being tailored to European requirements, the heavy weight specialists starting from the WA500 are produced in the KOMATSU parent company.

WA500

Engine: 15.2 l
Komatsu S6D140E
Engine power: 235 kW/320 hp
Operating weight: 29.0 tons
Tipping load (0°): 21,800 kg
Stand. bucket vol.: 5.0 m³



The "baby among the really big ones" - an entry to the heavy class. If you are looking for a quarry worker - the WA500-3 is top on the list. When you make this investment decision, quality and a long service life should have first priority. The WA500-3 offers a state of the art and long-life engine concept - a low-emission type with the highest cubic capacity in this class. Combined with buckets from 5.0 m³ up to 5.5 m³ for gravel work or as a loading machine for quarry trucks.

WA600

Engine: 23.2 lt
Komatsu SA6D170E
Engine power: 328 kW/445 HP
Operating weight: 44.1 tons
Tipping load (0°): 32,250 kg
Stand. bucket vol.: 6.5 m³



The 6 m³ class in the quarry - the proven quarry concept. The WA600 is the most popular class in the Komatsu large loader series. Whether efficiently loading dump trucks or feeding flexible hoppers - the WA600 is held in high esteem as a multi-talented partner in the hard rock industry. Matched to 40 ton semitrailers, the WA600 does not only stand for power but also fast loading.

WA700

Engine: 23.2 l
Komatsu SA6D170
Engine power: 478 kW/650 hp
Operating weight: 70.8 tons
Tipping load (0°): 46,050 kg
Stand. bucket vol.: 8.7 m³



Powerful and swift - the concept for 60 ton trucks. Quite opposite to the general opinion that quarry wheel loaders are slow or sluggish, the WA700 with its four-gear transmission and its extraordinary operating weight offers a long service life still looking for a competitor. Compatible with dump trucks offering load capacities between 46 and 78 tons, it needs no more than 4 to 6 loading cycles to fill such trucks.

WA800

Engine: 30.5 l
Komatsu SA12V140
Engine power: 603 kW/820 hp
Operating weight: 98.3 tons
Tipping load (0°): 57,400 kg
Stand. bucket vol.: 11.0 m³



The successor of a bestseller in the heavy weight class. When talking about the loading of large-volume 75 to 100 ton dump trucks, the WA800-3 is in its element. With their high market share, already its predecessors were the perfect proof that a high material handling capacity combined with an equally high quality standard are a compelling argument. Add the powerful KOMATSU V12 with its 820 hp - and the WA800-3 is hard to beat.

WA900

Engine: 30.5 l
Komatsu SA12V140
Engine power: 636 kW/865 hp
Operating weight: 101.6 tons
Tipping load (0°): 66,140 kg
Stand. bucket vol.: 13.0 m³



Top of the Komatsu large wheel loader range. It requires one loading cycle less when loading the 100t dump truck class thus typifying a concept of maximum productivity. Perfectly tuned to the KOMATSU HD985 dump truck, it comes up to the main requirement of many customers: more production power and output without modifying the quarry's infrastructure.

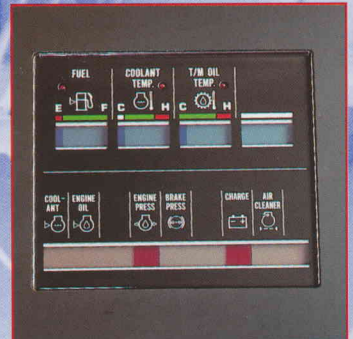
INDIVIDUAL:**WHAT IS STANDARD, WHAT IS AVAILABLE?
EQUIPMENT AND OPTIONS.****However demanding the problem - KOMATSU comes up with a solution.**

Take the versatile individual equipment options of our machines and you will see at a glance that, with a WA series wheel loader you buy nothing off the peg but a custom-tailored solution. We do not tell you what you need but you tell us what you want. In this way, every machine fully matches your requirements and tasks. Many extras are already 'ex work' standard at Komatsu. And for many of the standard features you would have to pay extra elsewhere. Make up your own WA: from

the tyres via the gearshift up to the dump height.



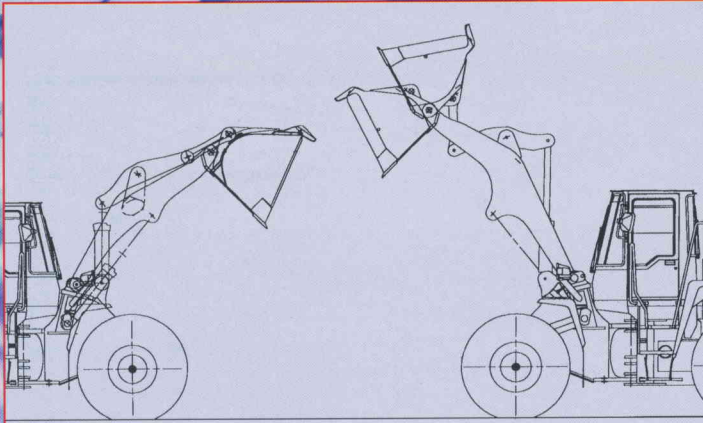
Multi-function lever - Simultaneous operation of attachment and traveling drive unit without taking the left hand off the wheel.



EDIMOS II - The error memory system cuts down on service time and increases the on-the-job safety.

**ALS
ELECTRONIC**

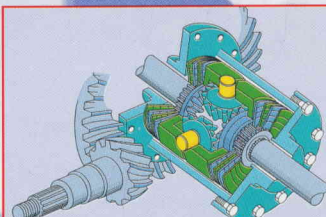
The ALS Electronic protects from vibrations and reduces load capacity losses. Due to two-step dampeners precisely matched to no-load and load operations.



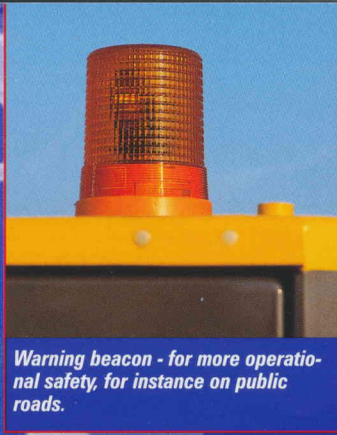
High-lift attachment increases the dump height by approx. 60 cm. For the loading of high hoppers, as for instance in lumber recycling or for the loading of high-sided trucks.




Simplified maintenance due to factory mounted central lubricating systems.




Multi-disc self-locking differentials in both axles with 45 % locking value increase the power even on slippery ground (option).




Warning beacon - for more operational safety, for instance on public roads.




Particle pre-separator TURBO II, extends the service and maintenance intervals of the intake filters and precipitates coarse particles.



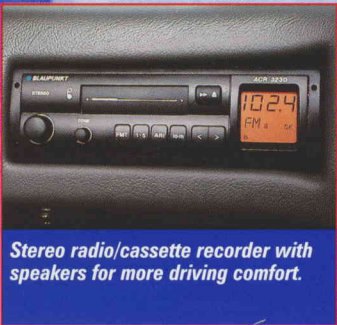
Single-lever operation - advantageous in earthwork operations (option).




Single-lever operation with 3rd control circuit - for additional hydraulic attachments (options).




Two-lever operation with 3rd control circuit - advantageous in rehandling work.



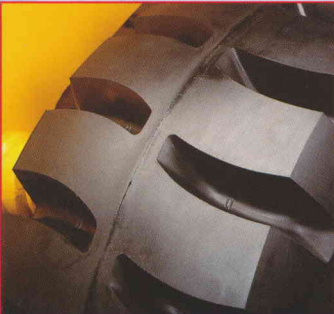
Stereo radio/cassette recorder with speakers for more driving comfort.




Touch key controlled air conditioning (standard starting from WA380) - Simple operation, flow volume 550 m³/h, cooling capacity 4000 kcal/h.




Additional counterweights from 325 to 400 kg increase the stability of the wheel loader when operating with heavy attachments.



Sturdy rock tyres for quarry work or in rubble recycling.



Traction tyres L-2/3 - good traction due to high self-cleaning power on slippery ground.



Universal tyres L-3 - ideal for varied operations in gravel pits and on firm grounds.

COMPATIBLE WITH THE ENVIRONMENT:

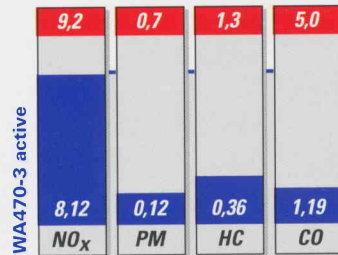
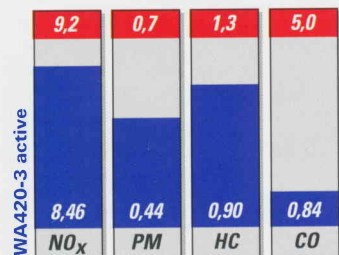
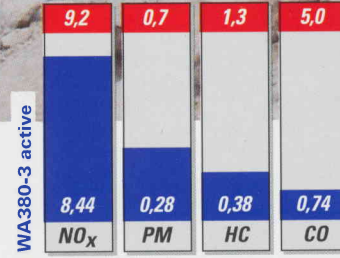
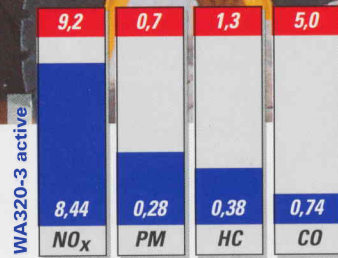
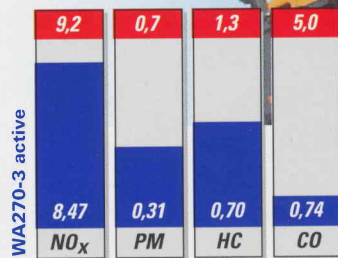
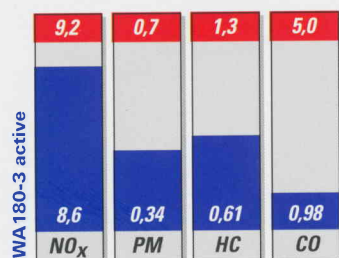
NOT TO FORGET THE EXHAUST EMISSIONS – FAR BETTER THAN REQUIRED BY EUROPEAN STANDARDS.

What starts with water soluble paint is consequently carried on right up to the reduced low-emission concept.

To accept responsibility for the environment and to think and act accordingly cannot just mean following the legal rules and standards. Which is why KOMATSU does much more than just come up to the standard.

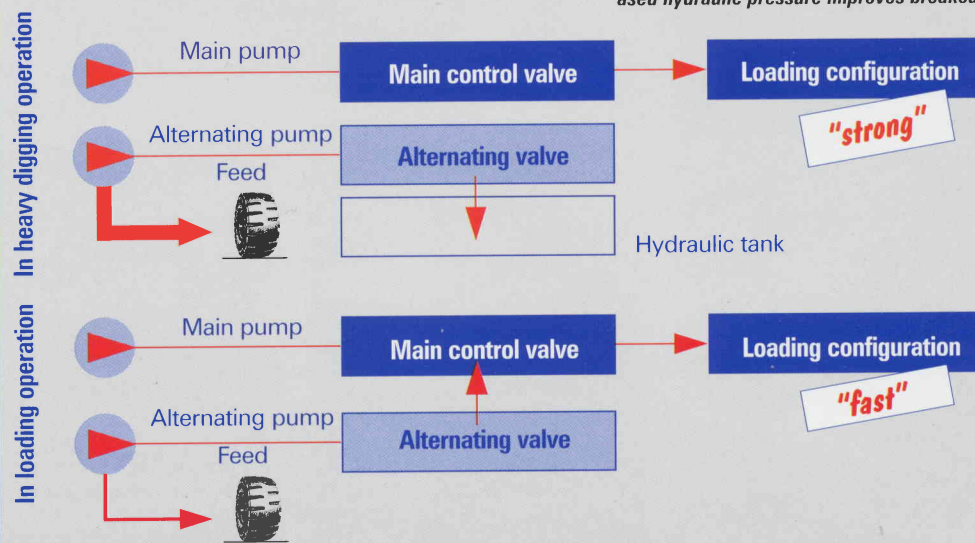
Take for instance the exhaust emission readings of our WA wheel loaders - they range far below the legal requirements. Thus setting an example which will set new standards. Simultaneously, you will have the good feeling to demonstrate compatibility with the environment in a positive way when setting to work with this machine - instead of using "smoking monsters".

Exhaust limit values in g/kWh according to ISO 8178



The APS is a hydraulic system automatically adjusting to the individual operating conditions. During loading and stockpiling work, both pumps are operating, the hydraulic flow is fast. In heavy digging operation, the alternating pump is switched-off so that the entire power is made available as tractive power to drive into the face. At the same time increased hydraulic pressure improves breakout.

EC limit values
Actual values of the Komatsu wheel loader



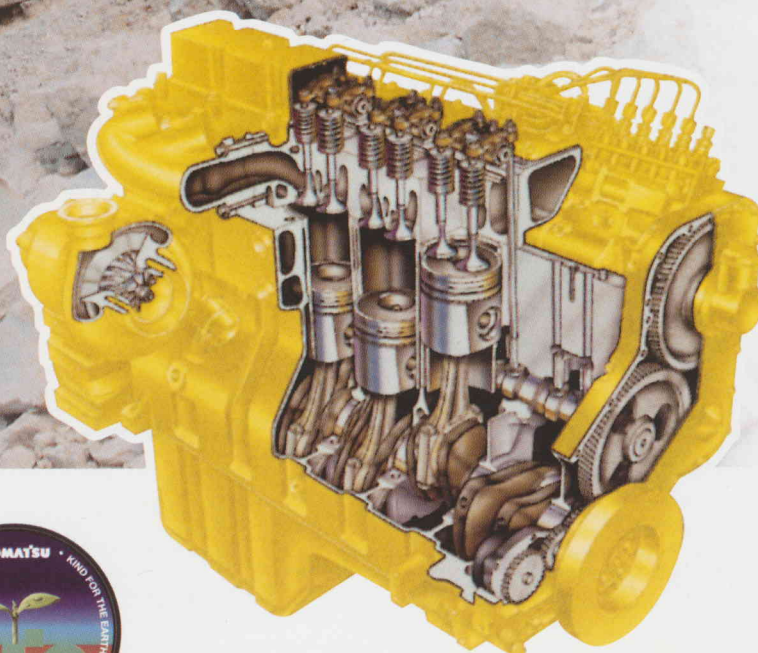
COMPATIBLE WITH THE ENVIRONMENT:

LOW-EMISSION PLUS EXCELLENT PERFORMANCE VALUES.

To do one thing without giving up the other.

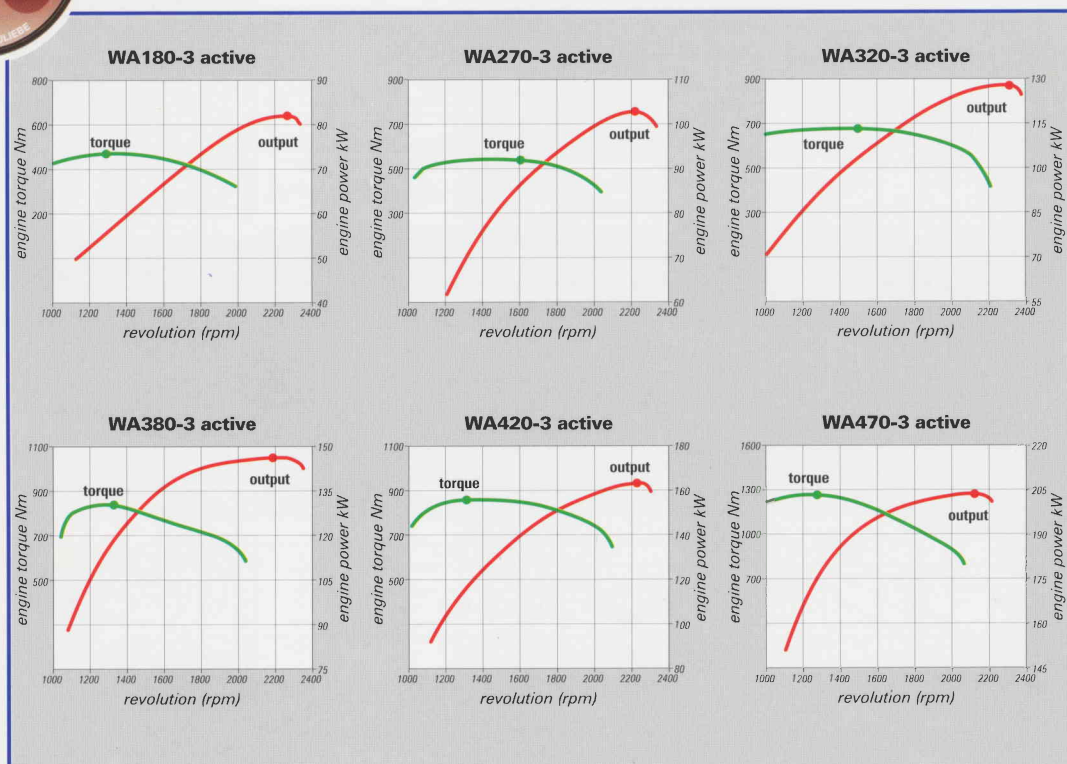
It doesn't make much sense to construct a loader which is in perfect harmony with the environment but at the cost of performance. Little output means having to work longer hours to achieve one's targets. Which - in this case - would again be a set-back. Here is the answer by KOMATSU High engine power despite low emission values.

6-cylinder low-emission engines offering a higher torque increase, increased output and drastically reduced emissions.



Environmental thinking all over again.

The loading hydraulic system of the WA wheel loaders can be operated by using bio oil which can easily be disposed of so that it will not become a problem after operation.



INDIVIDUAL:

CUSTOM-TAILORED TOOLS FOR OPTIMUM RESULTS.

Earthwork bucket - perfectly suited for earthwork and the loading of cohesive materials.

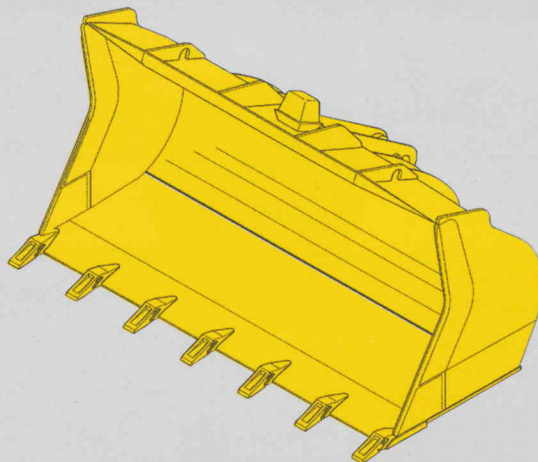
This bucket offers bevelled side edges allowing for powerful horizontal penetration into solid material, for instance clay. On the other hand, the straight, flat bucket floor with rear drawing edge ensures that grading and cleaning up can be carried out without any problem.

Bucket type A: earthwork

Model type		180-3	270-3	320-3	380-3	420,3	470,3	
Bucket	Volume							
with teeth	(m ³)	1.6*	2.1	2.4	2.6	3.1	3.6	4.2
Order no.		3900C41/C45	3734C02	3734C22	3745C42	3746C42	3747C42	3748C42
without teeth	(m ³)	1.6*	2.1	2.4	2.6	3.1	3.6	4.2
Order no.		3900C42/C43	3734C01	3734C21	3745C41	3746C41	3747C41	3748C41
with bolt-on cutting edge	(m ³)	1.7*	2.2	2.5	2.7	3.2	3.8	4.3
Order no.		3900C40/C44	3734C03	3734C31	3745C45	3746C45	3747C45	3748C45

* = also to be attached to quick-change system

** = bucket width 3.170 mm



Universal bucket - the jack all of trades particularly suited for the gravel loading.

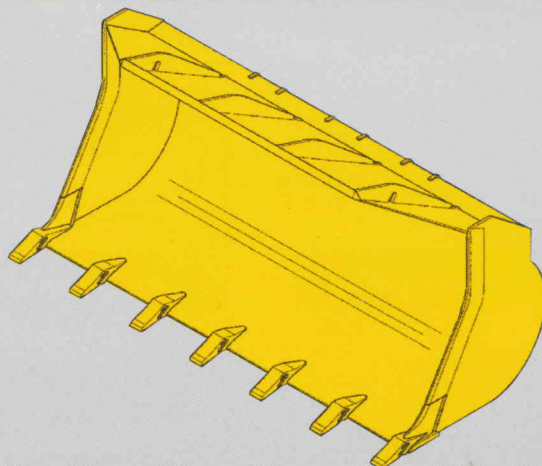
This flexible bucket is also characterised by the bevelled side edges for powerful penetration. The round floor and rear design, however, make this bucket the perfect solution for an excellent break-out capacity in coarse rubble and for instance gravel or sandy earthworks. Skids under the bucket suspension points guarantee a long service life.

Bucket type C: universal

Model type		180-3	270-3	320-3	380-3	420,3	470,3	
Bucket	Volume							
with teeth	(m ³)			2.6	3.1	3.6	4.2	4.3**
Order no.				***	***	***	***	***
without teeth	(m ³)			2.6	3.1	3.6	4.2	4.3**
Order no.				***	***	***	***	***
with bolt-on cutting edge	(m ³)			2.7	3.2	3.8	4.3	4.5**
Order no.				***	***	***	***	***

** = bucket width 3.170 mm

*** = available starting from 6/98



Bulk material bucket - the high - volume handling of graded material is its most striking feature.

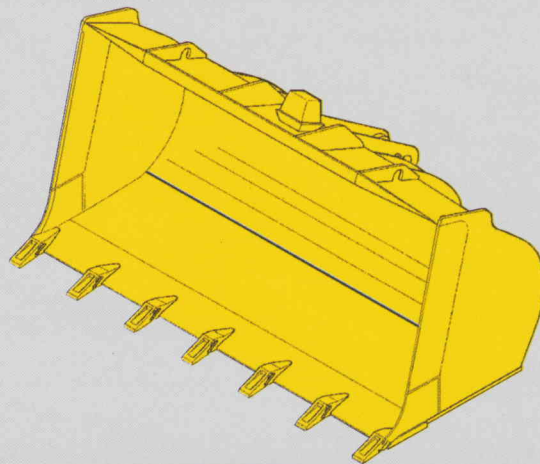
This bucket offers straight side edges and a long bucket floor to handle extremely loose materials without loss. With its large loading capacity and bolt-on cutting edges, this bucket is perfectly suited for material handling on firm ground.

Bucket type B: bulk material

Model type		180-3	270-3	320-3	380-3	420-3	470-3
Bucket	Volume						
with teeth	(m ³)			2.9	3.4	4.0	4.6
Order no.				3745C44	3746C35	3747C52	3748C44
without teeth	(m ³)			2.9	3.4	4.0	4.6
Order no.				3745C43	3746C36	3747C51	3748C43
with bolt-on cutting edge	(m ³)		2.2* 2.5*	3.0	3.5	4.15	4.7
Order no.			3734C03 3734C31	3745C48	3746C37	3747C53	3748C70

* = same form as the earthwork bucket

** = bucket width 3.170 mm



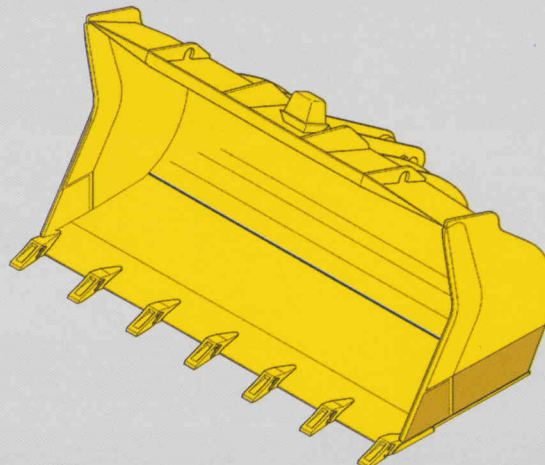
Heavy duty bucket - if things are getting rough in rubble recycling.

This bucket is particularly suited for heavy rubble recycling applications. Hardox-500 edge and Hardox-400-floor plus bucket sides made from tempered steel result in high wear resistance and rigid fabrication.

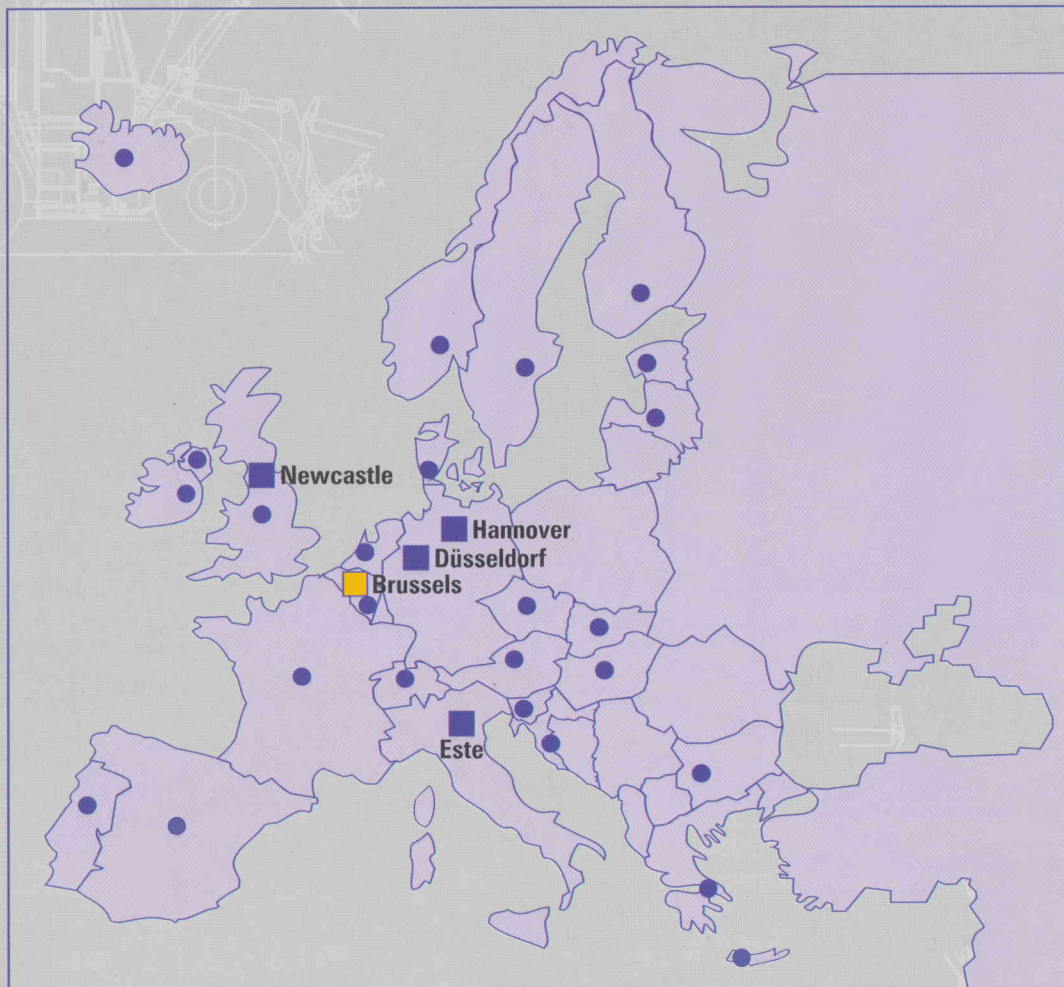
Bucket type D: heavy duty

Model type		180-3	270-3	320-3	380-3	420-3	470-3
Bucket	Volume						
with teeth	(m ³)				3.1	3.6	4.2
Order no.					3746C29	3747C36	3748C36
without teeth	(m ³)				3.1	3.6	4.2
Order no.					3746C28	3747C35	3748C35
with bolt-on cutting edge	(m ³)				3.2	3.8	4.3
Order no.					3746C30	3747C37	3748C37

* = bucket width 3.170 mm



EUROPEAN FACTORY AND DISTRIBUTION NETWORK.



■ KOMATSU Europe International n.v., Brussels

■ KOMATSU HANOMAG AG, Hannover

■ KOMATSU UK Ltd., Newcastle

■ FAI KOMATSU INDUSTRIES, Este

■ DEMAG KOMATSU GmbH, Düsseldorf

● DISTRIBUTORS

Qualified and area wide service.

KOMATSU provides a close-meshed, high levelled sales and service system with specially trained, experienced personnel. You can trust that you will not only get a qualified full-line consulting when you choose the KOMATSU machines suitable for your requirements but also a competent maintenance and repair service by our specialists.

Overnight spare parts delivery.

KOMATSU distributors are linked by computer to our central stocks in Hannover and Brussels where the majority of spare parts is available. This network all over Europe enables an overnight spare parts service and reduces down times.

Reman exchange components increase the value of a used machine.

Reman exchange components which are very cost effective are originally made by KOMATSU. All parts have of course got the complete KOMATSU warranty.

Preventive maintenance by our distributors' specialists decreases operational costs:

- Oil wear analysis
- Undercarriage wear analysis
- Diagnosis test for the complete machine
- Special programmes for wearing parts

KOMATSU

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*The construction features shown are not relevant for all machines of the active series.
For detailed information please ask your Komatsu partner.*