

UD NISSAN DIESEL MOTOR CO.,LTD.

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CRANE CARRIERS



UD NISSAN DIESEL

You have every reason in the world to choose Nissan Diesel crane carriers.

There are many reasons why Nissan Diesel is the world's leading manufacturer of crane carriers. Since we started building them in 1960, we have put our approximately fifty years of trucking experience into each of the more than 27,000 crane carrier units we've sold.

And the reason we've sold more than our competitors is superior UD technology. We have carefully researched and developed highly efficient engines with optimal combinations of powertrain and features for maximum efficiency, safety, easy operation and outstanding performance.

For the operator, safe, comfortable one-side cabs provide a superior work environment, offering maximum visibility. The one-side design also makes for easy crane installation. And you can't find a more stable carrier anywhere, because the Nissan Diesel models incorporate durable, all-welded frames including three-box structure on the rear frame for enhanced lifting capacity.

Power, safety, easy operation and stability. That's what you'll find in every Nissan Diesel crane carrier.



Solid support for every crane



KW30M



KG52T



KG53W



KG66W*



KG30R



KG53T



KG60W



AZ30D*



KG45S



KG52V



KH60Y

Model	KW30M	KG30R	KG45S	KG52T	KG53T	KG52V	KG53W	KG60W	KH60Y	KG66W*	AZ30D*
Maximum lifting capacity (tons)	25	30	50			60	70	100		200	20
Drive	6x4				8x4				10x6	8x4	4x4
Wheelbase (mm)	4,600	4,690	4,940	5,215		5,530	5,850	5,950	6,066	5,800	3,500
Engine	PE6, 230 PS		PE6T, 275 PS		RE8, 315 PS			RD10, 350 PS		RE10, 370 PS	PE6, 230 PS

* Soon to be marketed.

A comfortable, highly productive cab

Nissan Diesel's one-side cabs have met with acceptance from our customers for a number of reasons. Able to accommodate two people comfortably, they offer easy operation and good visibility. Standard blue laminated windshields absorb powerful sun rays, adding extra safety and comfort. We have also added enlarged rearview mirrors.



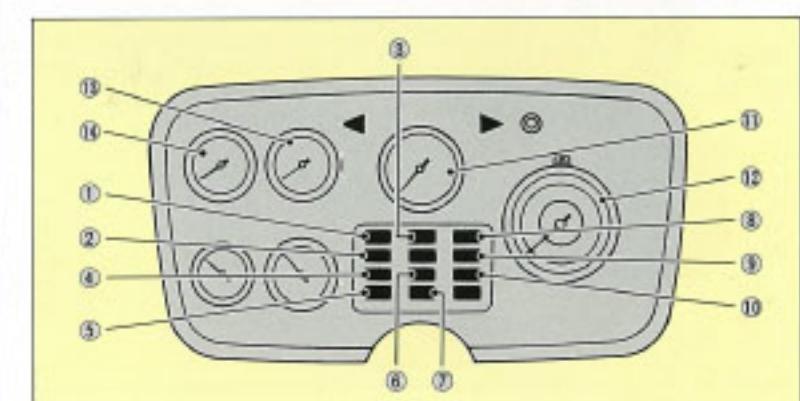
A cab that offers sure, efficient operation

Drivers will find nothing more precisely researched and constructed than the Nissan Diesel cab. It offers a wide mounting area for both hydraulic and mechanical cranes. And for visibility, it has narrow pillars and triangular windows that let operators make tight turns and negotiate narrow roads with the greatest of ease. An ergonomically-designed steering wheel, pedals and control levers incorporate the latest in cab research to ensure comfort and minimize driver fatigue.



Meters and gauges

Glare-free meters and gauges on the instrument panel are easy to consult. Centralized warning indicators give the driver a quick reading of vehicle conditions. In addition, each switch is located within easy reach of the driver for added safety and convenience.



Ventilation system

Nissan Diesel crane carriers incorporate a number of features to assure operators optimum ventilation. Our all-weather roof ventilators permit adjustment of air volume and direction for proper air flow under various working conditions. In addition, a grill inlet brings air into the lower cab. And when weather does not permit the operator to work with windows open, a drafter on the pillar between the door and side windows provides effective ventilation. Forced ventilation is available,

Tachometer-inlaid odometer

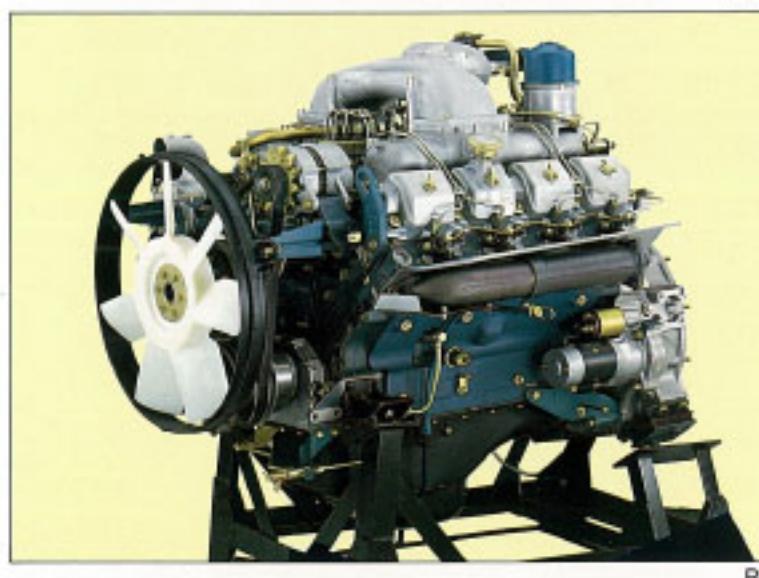
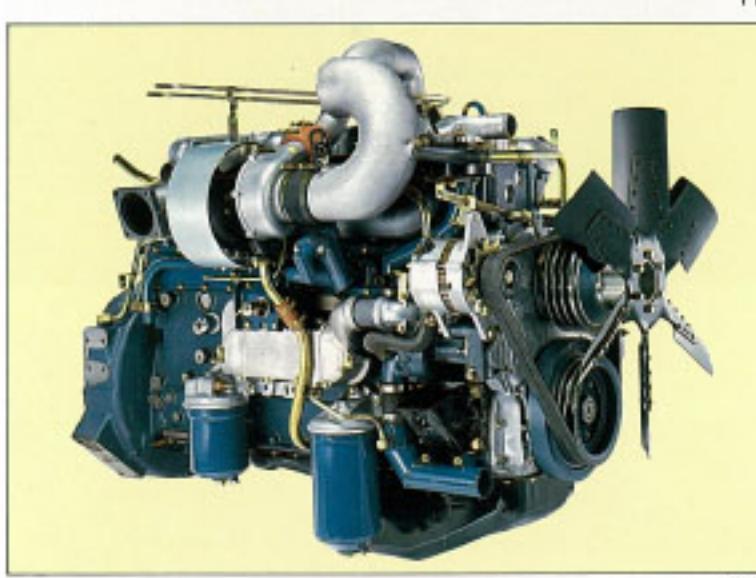
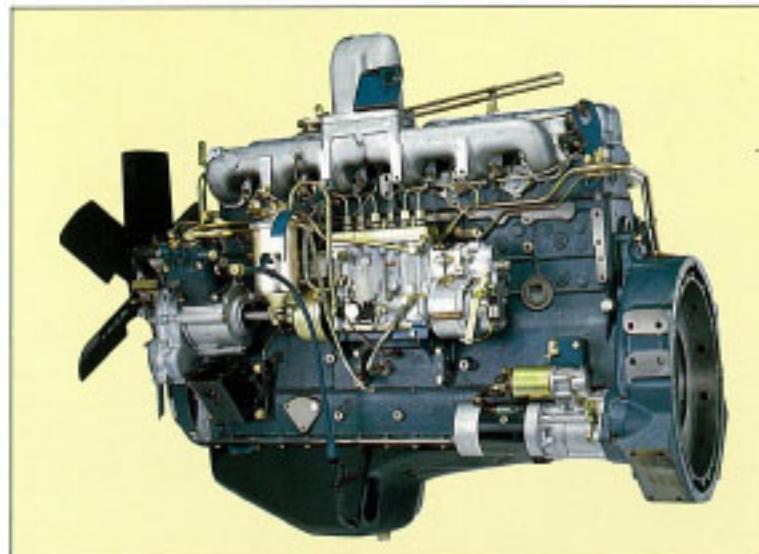
The odometer can be directly read in the tachometer as standard. Therefore, you can judge the maintenance term of the engine by reading the odometer.

Panel features

- ① Air pressure warning lamp
- ② Recharging warning lamp
- ③ Parking brake warning lamp
- ④ Transmission high-speed range pilot lamp
- ⑤ Transmission low-speed range pilot lamp
- ⑥ Spring brake pilot lamp (Opt)
- ⑦ Exhaust brake pilot lamp
- ⑧ Oil pressure warning lamp
- ⑨ Water level/overheat warning lamp (Opt)
- ⑩ Third differential gear lock pilot lamp
- ⑪ Tachometer (w/odometer)
- ⑫ Speedometer
- ⑬ Air pressure gauge
- ⑭ Oil pressure gauge

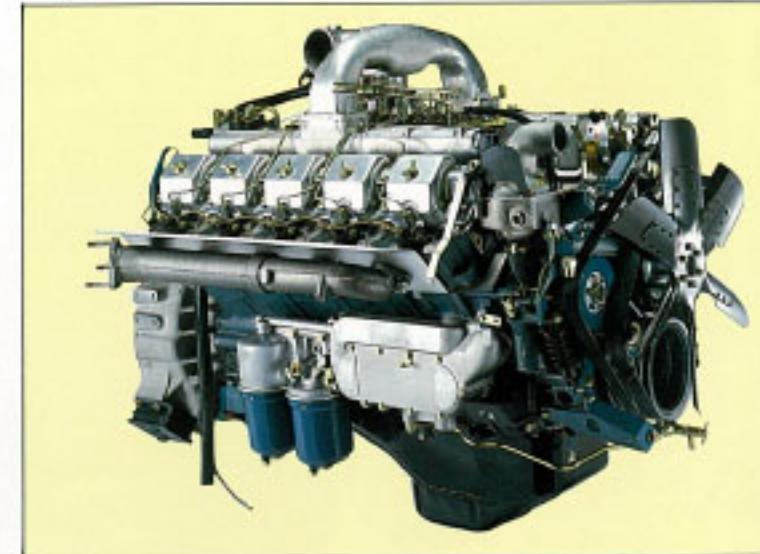
Tough, economical engines for every carrier

Our crane carrier engines are designed for the things you need most. First of all, a massive piston displacement provides high torque at low speeds for ample power no matter what the job. For high reliability, we've incorporated sophisticated lubrication and cooling systems and have restricted the maximum rpms to lengthen parts' longevity. And for fuel economy, easy starts and quiet operation, we added the Nissan Diesel direct-injection system featuring a toroidal combustion chamber.

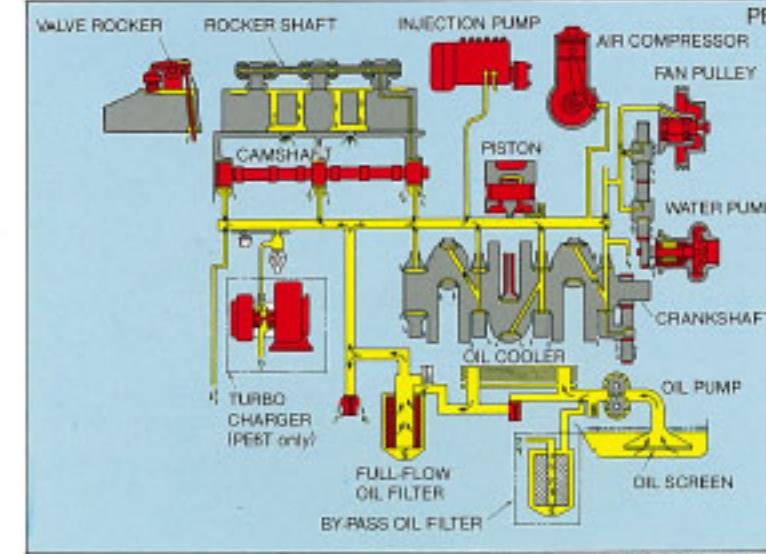


Engine specifications

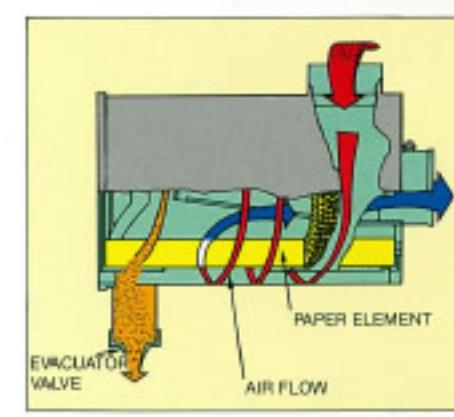
Engine model	PE6	PE6T	RE8	RD10	RE10
Item					
Type	4-cycle, direct-injection, water-cooled				
Number of Cylinders	6, In-line	8, Vee	10, Vee		
Piston Displacement cc	11,670	15,115	17,892	18,894	
Maximum Output PS/rpm	230/2,300	275/2,300	315/2,300	350/2,500* 360/2,300**	370/2,200
Maximum Torque kg-m/rpm	83/1,200	98/1,200	105/1,400	123/1,400	130/1,400
Crane Carrier Model	KW30M KG30R AZ30D	KG45S	KG52T KG53T KG52V KG53W	KG60W* KH60Y**	KG68W



RE10



Lubrication system

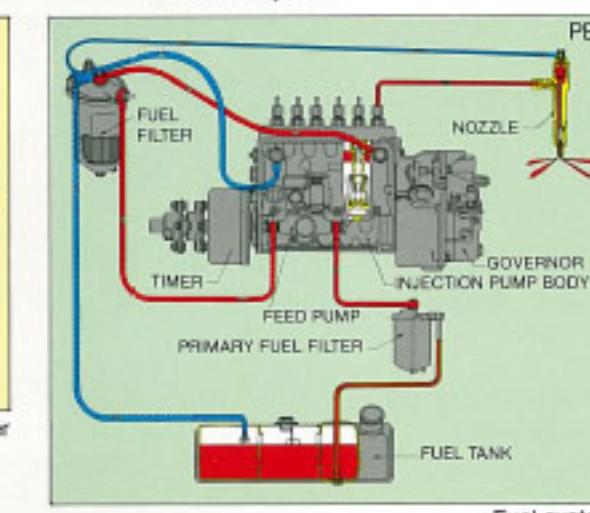


Lubrication system

We offer a host of sophisticated lubrication features. An oil jet system lubricates and cools pistons, liners and pins by forcing oil to the undersurfaces of pistons. In addition, both full-flow and bypass filters clean all contaminants from the oil system.

Air intake system

For the most efficient combustion, the air intake system begins by separating large dust particles and moisture from incoming air with a centrifugal precleaner—dust and water accumulation is dispelled automatically by a vacuator valve. In addition, a large dual-element dry



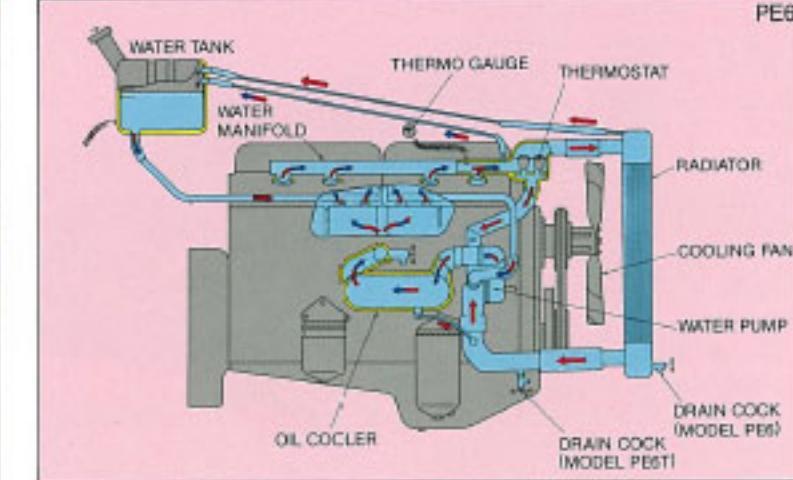
Fuel system

paper cleaner with cyclone precleaner stops dust from entering the engine.

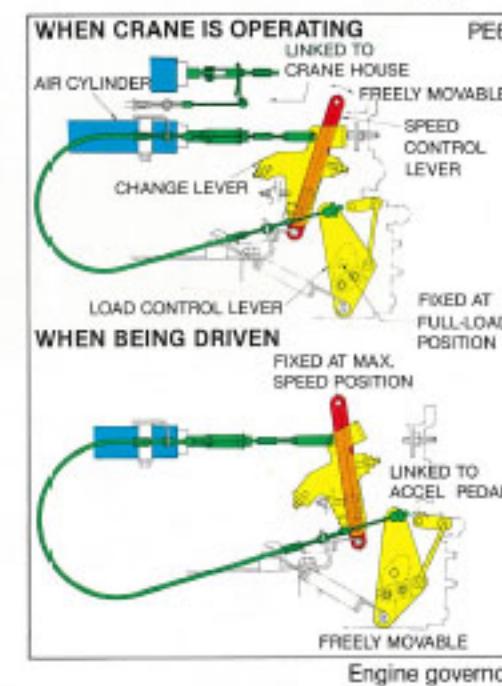
The Bosch "P" in-line plunger-type injection pump incorporated in the system injects the proper amount of vaporized fuel to each cylinder at the right time, for the proper duration, with the appropriate pressure. In addition, a mechanical centrifugal automatic timer is provided in the pump. Two large-size fuel filters are incorporated in all models as standard.

Cooling system

The cooling system is a fresh-water, forced-circulation type with either a gear-driven or belt-driven type centrifugal pump. To obtain the cooling temperature most suitable to various climatic conditions, thermostats with different temperature ranges are provided—three for the PE6 and PE6T, and four for the RE8, RD10 and RE10. The water tank is built separate from the engine body, coolant supplements and inspections can easily be implemented.



PE6



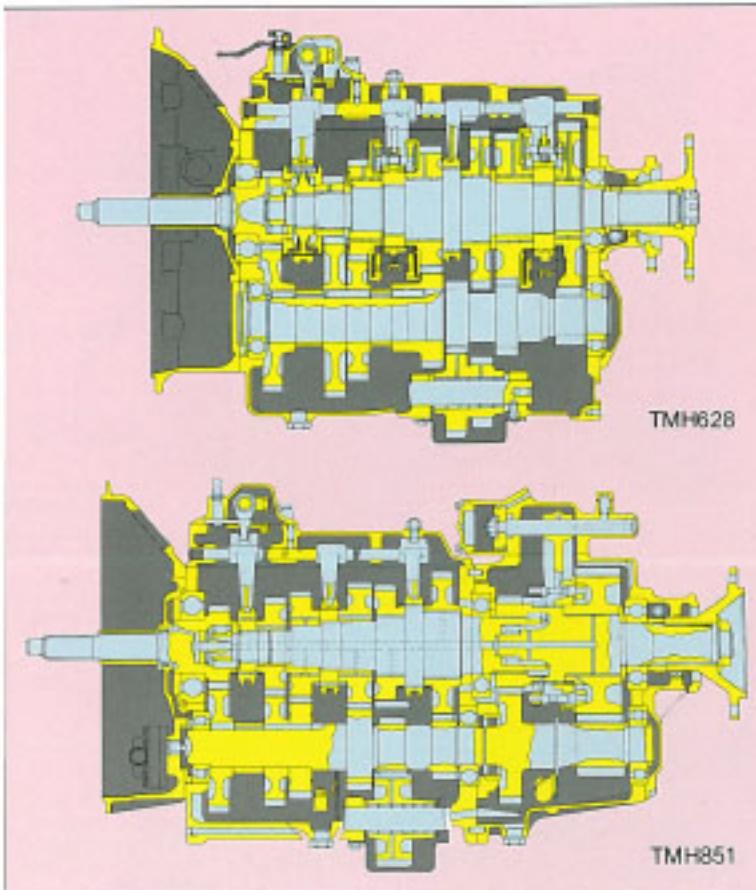
PE6

Engine governor

Turning the transmission PTO switch on automatically changes the operating mode from "limit speed" to "all speed." Since this engine speed control unit is located on the control link part of the governor, both operating ease and reliability are assured.

High technology for the greatest stability

To meet user needs, we offer a comprehensive lineup of crane carriers. You can choose from a wide variety of transmissions, differential gears, axles, suspension systems, safety brake systems, light steering systems and frames—all distinguished by the strength and reliability characteristic of Nissan Diesel products.

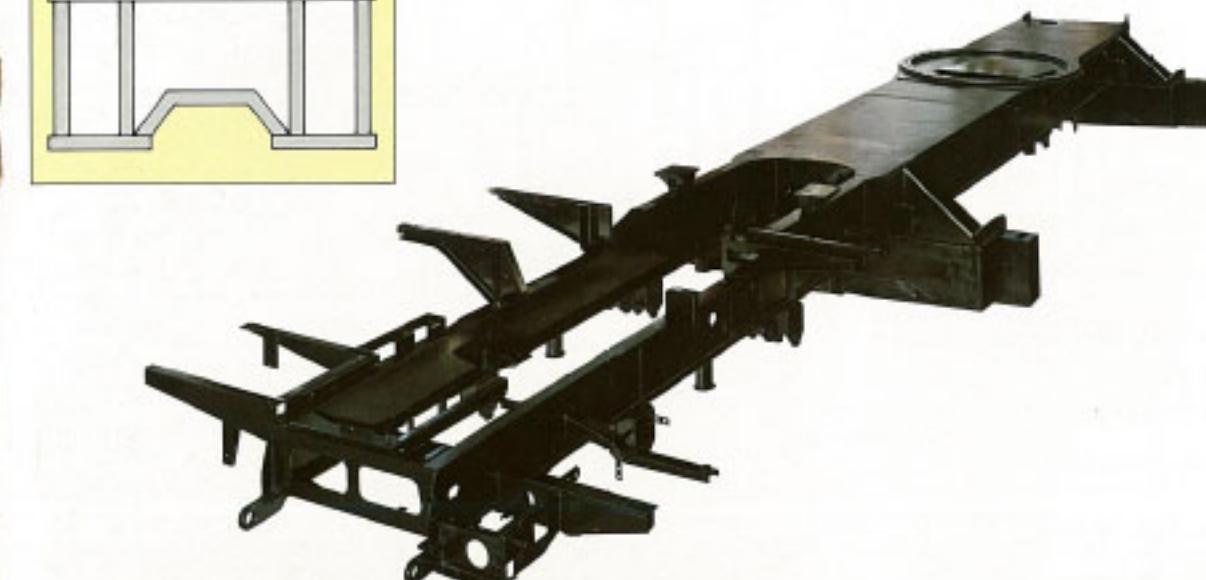
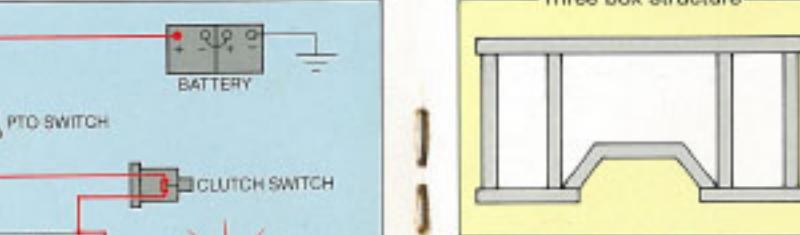
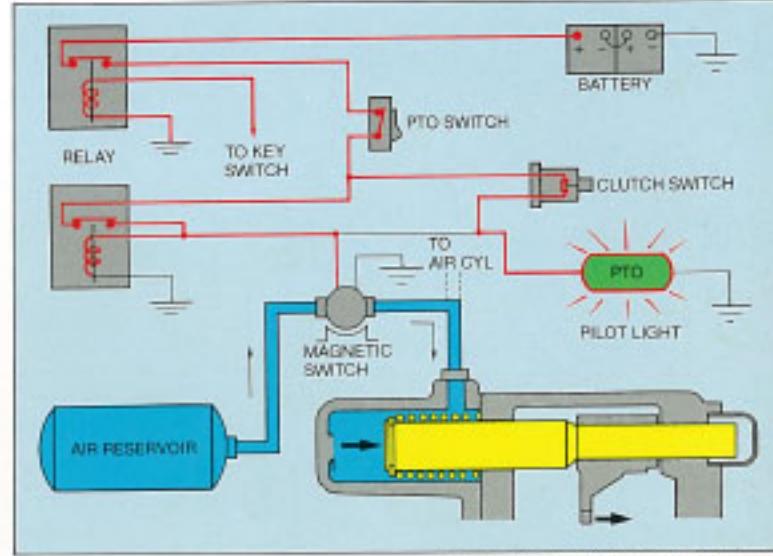


Transmission

The KW30M and KG45S models feature the 6-speed, synchromesh, Nissan Diesel TMH628 transmission; the KG30R features the 5-speed constant-mesh; the TMH315, KG52T and KG53T incorporate the 10-speed split type, synchromesh TMH502; the KG53W utilizes a mighty 9-speed, constant-mesh TMH851 transmission and offers superior maneuverability.

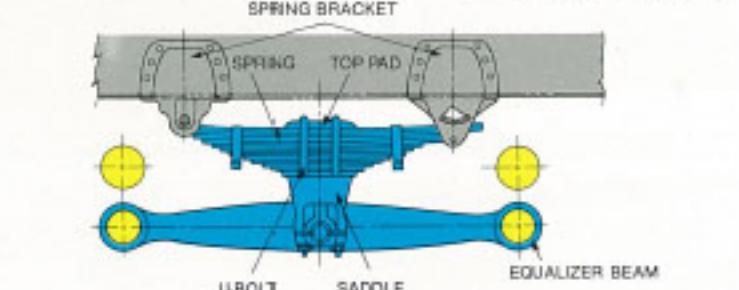
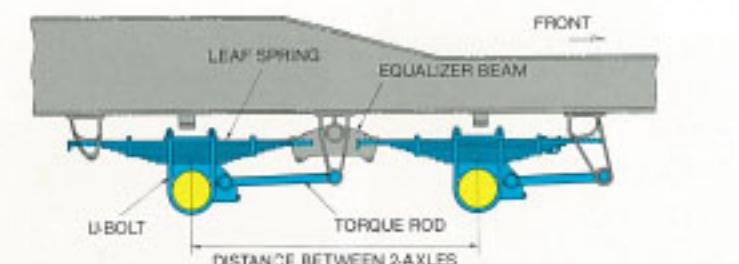
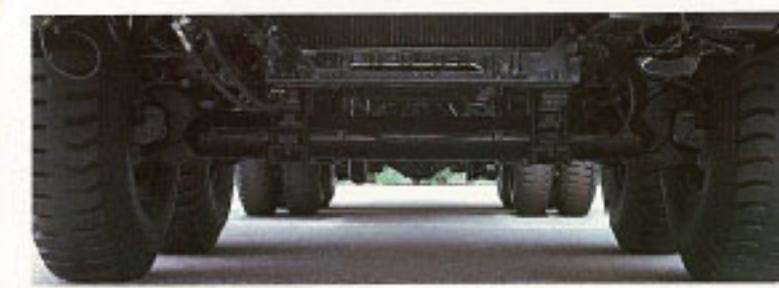
Clutch

To give the best clutch action possible, we've built in a tested Borg and Beck, dry-single-plate, strap-drive clutch. In the KG45S, KG52T, KG53T, KG52V and KG53W, this is a large (17") diameter component. With this device, clutch operations are easy and light because of the hanging type clutch pedal and an air servo hydraulic control system with a clutch booster. Also optionally available on all models is a ceramic clutch facing which lengthens maintenance intervals.



A heavy-duty frame

The Nissan Diesel frame is one of the mightiest going. It employs an all-welded frame with high-tensile steel between front and rear outriggers. The three-box construction is considerably stronger in both bending moment strength and torsion moment strength than the conventional single-box type. In addition, upper frame thickness around the ring plate has been increased for even more strength. Front frame formation is an H-section side rail; the rear part a box-shaped parallel ladder-type. Membraned ribs also distribute the load equally.



Front axle

The front axles of the KW30M, KG30R and KG45S are drop-forged steel "I" section beams with reverse "Elliot" steering knuckles for improved stability. Others are steel tubes with either reverse or non-reverse "Elliot" steering knuckles.

Rear axle

For the KW30M, KG30R and KG45S, the rear axle is composed of a pressed steel semielliptic leaf springs and single acting shock absorbers that contribute to rolling stability. The KG53T offers sliding contact type, and the KG53W has load sharing type semielliptic leaf springs. Both the KG52T and KG52V utilize an equalizer beam type suspension.

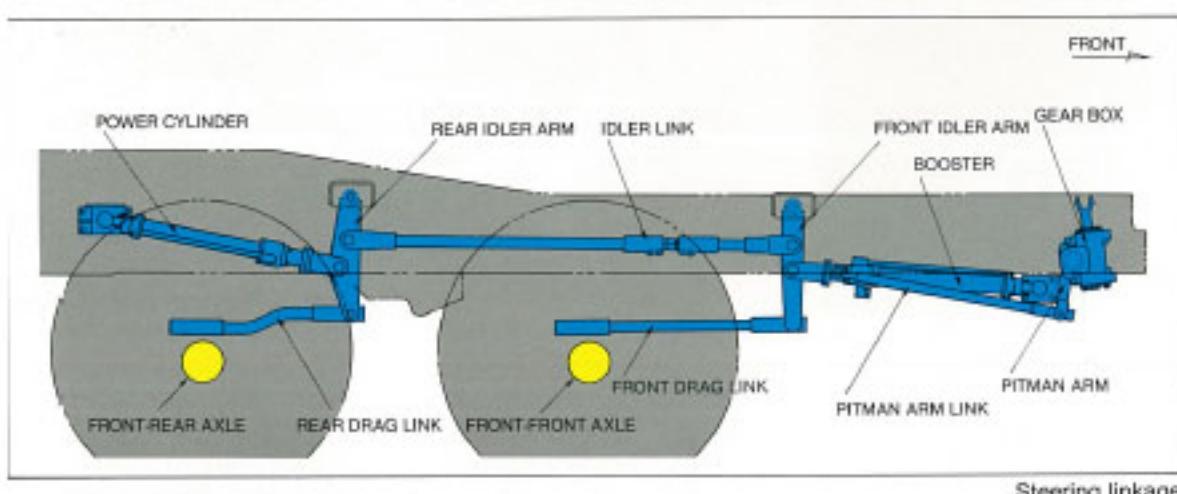
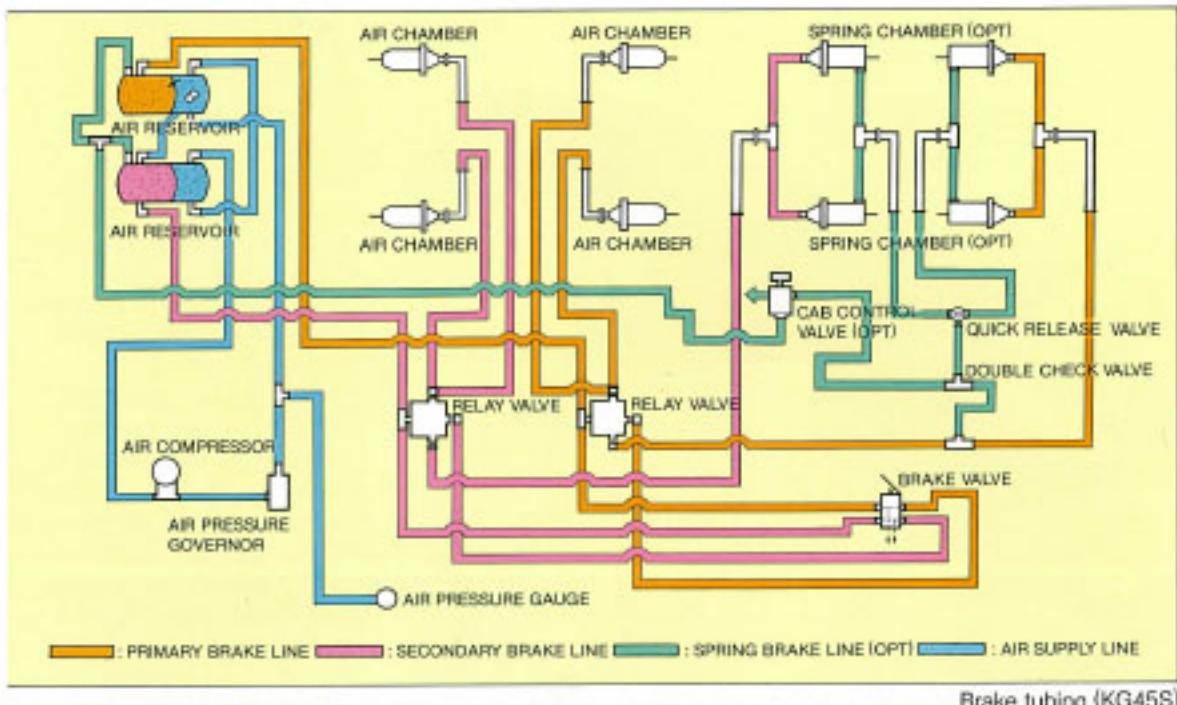
Front suspension

All models except the AZ30 and KH60Y have two rear axles and feature under-hanging, high-tensile steel equalizer beams and two torque rods. Leaf-spring suspension is optionally available on model KG45S for more driving comfort and a lightened rig.

Rear suspension

Easy maintenance

Easy access is the key to easy maintenance. Nissan Diesel crane carriers give it with a large engine hood that makes both installation and maintenance easy. Checking engine coolant, hydraulic, engine and clutch oil, washer liquid, and power steering fluid can be completed quickly and easily. Access to wiring and fuses is also easy.



Light and positive steering

For crane carrier operation, Nissan Diesel has developed a highly efficient steering system. With an easy-to-grip, semi-cone, two-spoke steering wheel and a circulating hydraulic oil system kept

clean with air and oil filters located in the oil reservoir, steering operation is smooth, light and reliable. In addition to extending service life with sophisticated features, the KG52T and KG53T include

not one but two power cylinders, therefore strong power and lighter steering is realized.

Service brake

Strongly-built internal expanding leading and trailing brake shoes provide mighty stopping power. A slack adjuster facilitates adjustment of brake linings. The air-tubing system features air reservoirs with four completely independent compartments. Brake lines are separated by dual brake valves; should one line fail, the other will take over to provide adequate braking power. Synthetic resin clamps projecting from the frame prevent damage caused by surface contact and corrosion of tubes.

Exhaust brake

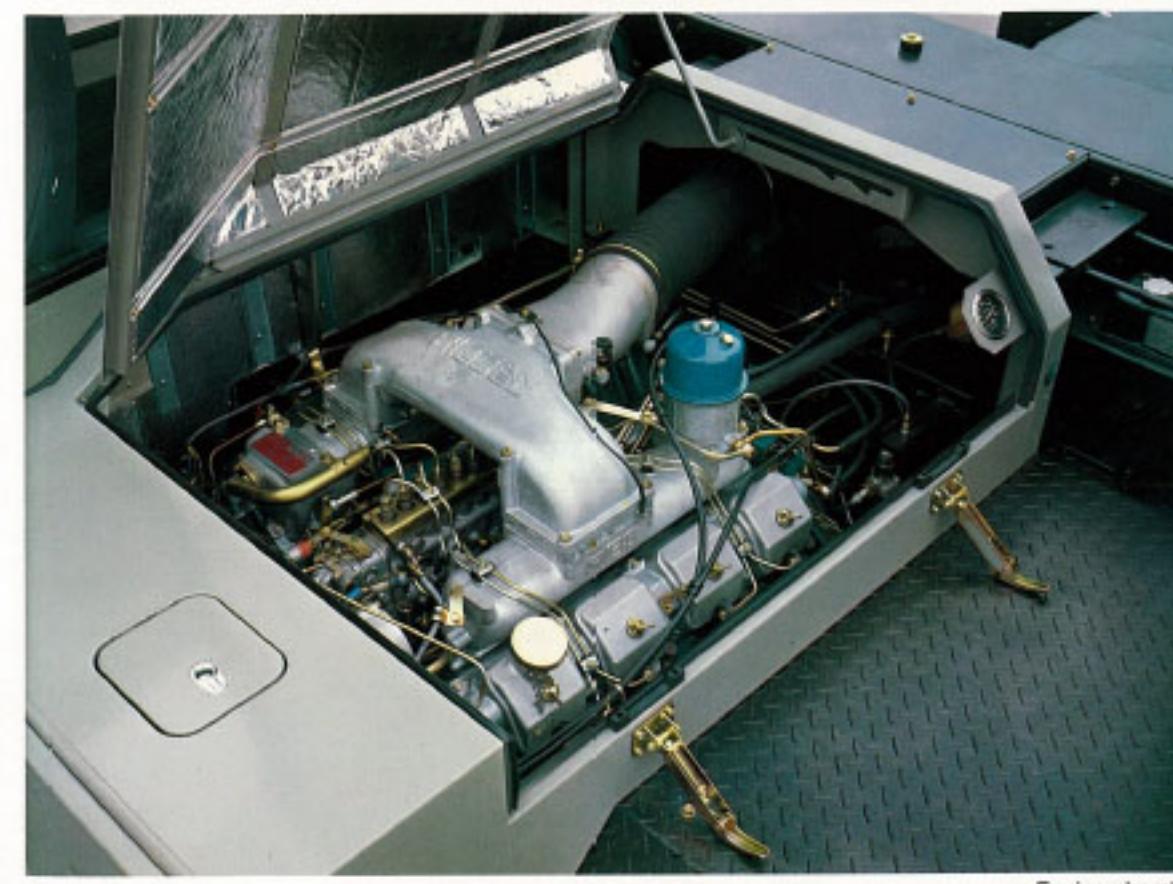
The exhaust brake is operated by a lever switch strategically placed on the steering column. It guarantees efficient engine braking at all times—even when descending the steepest inclines. This means that the driver uses it in turn with the foot brake to prevent excessive use of the foot brake.

Parking brake

The parking brake is internal-expanding and acts upon a drum positioned behind the transmission. It is operated by an easily-accessible hand brake lever in the cab.

Spring brake (optional)

A highly convenient feature, this brake can be used as a parking and emergency brake. For added safety, it will automatically function if the air pressure in the service brake linings becomes too low. And as a parking brake, it requires merely the operation of a control valve to activate a mighty spring brake on all rear wheels.



Sales items

● Chassis									
Clutch disc	Semi-mold		●	●	●	●	●	●	●
	Ceramic		○	○	○	○	○	○	—
Transmission + transfer × differential	TMH313+TF212×	3.083×3.474	—	—	—	—	—	●	—
	TMH315×	6.833	—	●	—	—	—	—	—
	TMH316+TF215×	3.083×3.474	—	—	—	—	—	—	●
	TMH323+TF212×	3.083×3.474	—	—	—	—	—	○	—
	TMH502×	6.833	—	—	—	●	●	—	—
	TMH601+TF458×	2.857×3.474	—	—	—	—	—	—	●
	TMH628×	6.166	●	—	○	—	—	—	—
		6.833	○	—	●	—	—	—	—
	TMH851×	5.857	—	—	○	—	—	—	—
		6.833	—	—	—	○	○	—	—
		4.333×1.523	—	—	—	—	—	●	—
Transmission PTO	TMH852×	2.857×3.214	—	—	—	—	—	—	●
	RT11609A×	5.143	○	—	—	—	—	—	—
	CM300-12C×	4,111×2,600	—	—	—	—	—	—	●
	30kgm		—	●	—	●	—	●	●
	50kgm		○	—	—	—	—	—	—
Third differential gear lock	70kgm		●	—	●	—	—	—	●
	75kgm		—	●	—	—	●	—	—
	80kgm		—	—	○	—	○	●	—

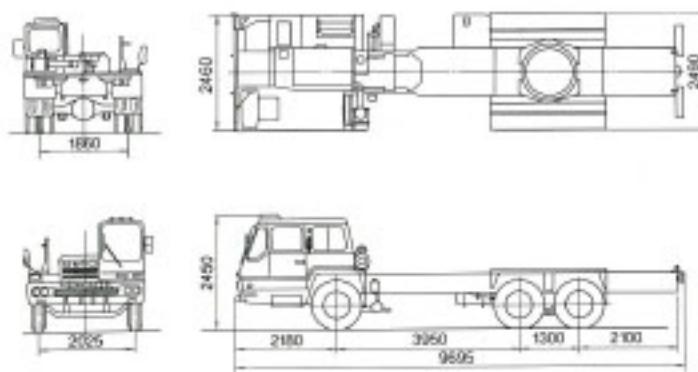
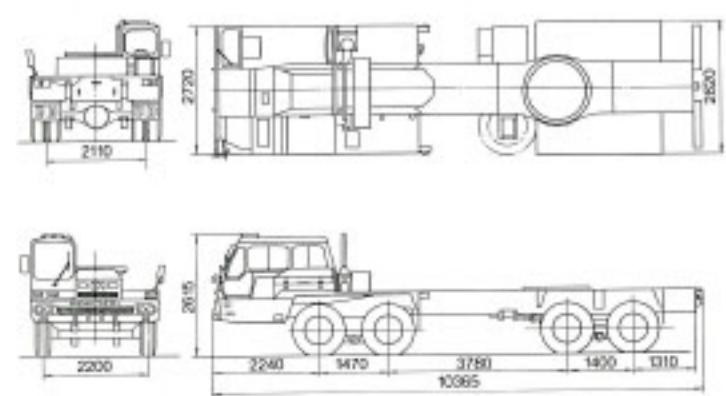
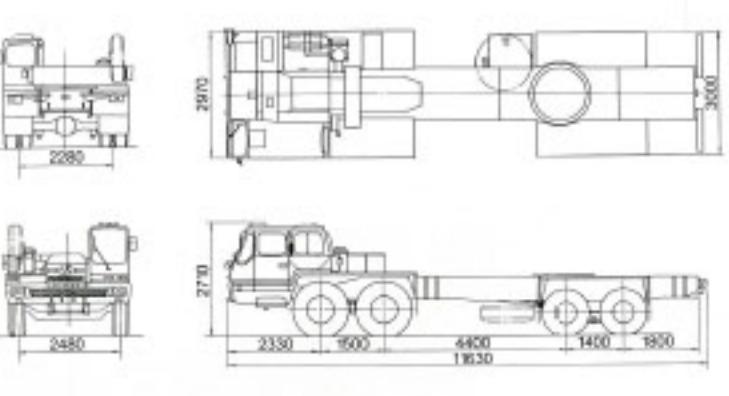
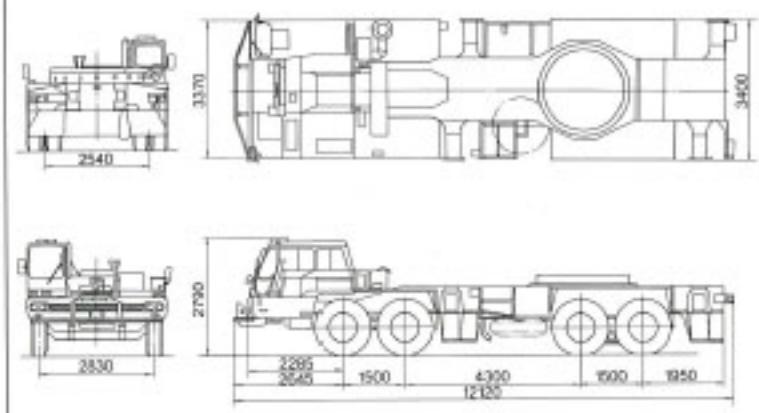
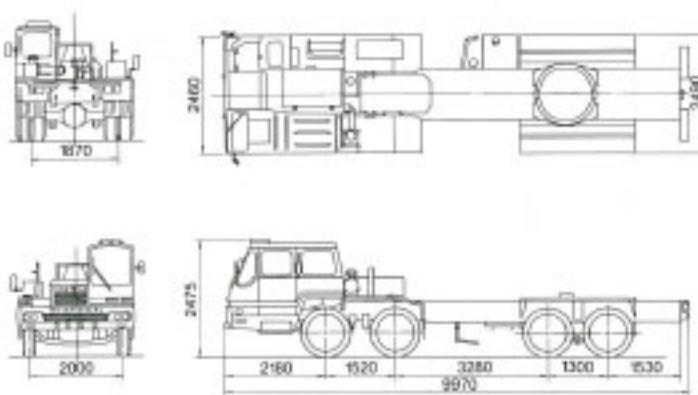
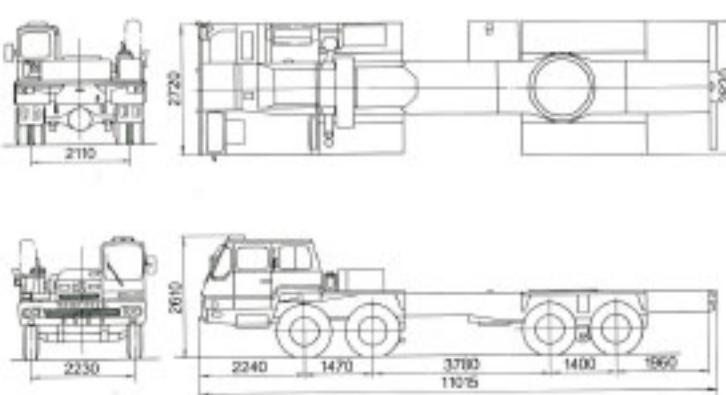
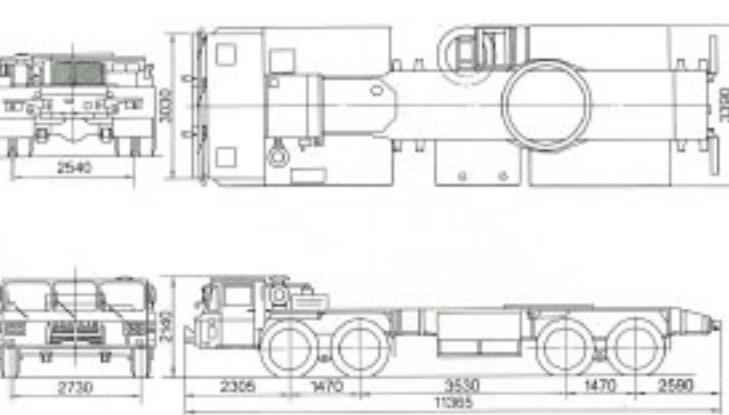
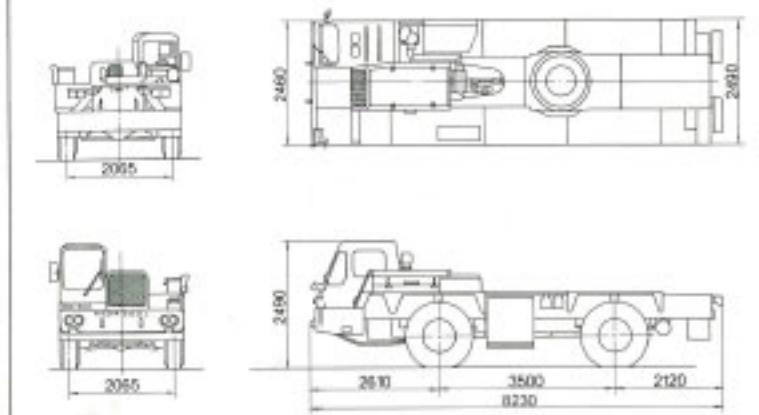
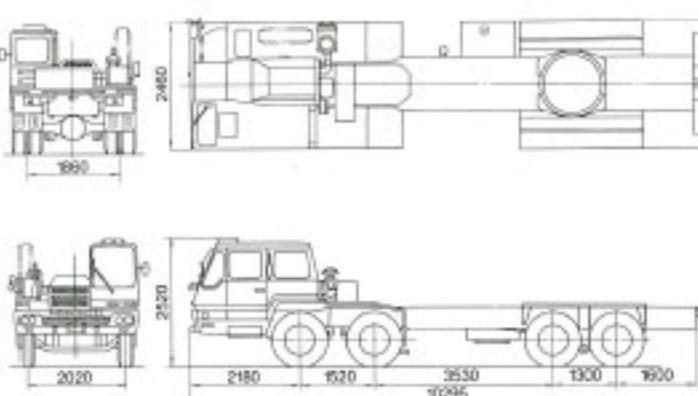
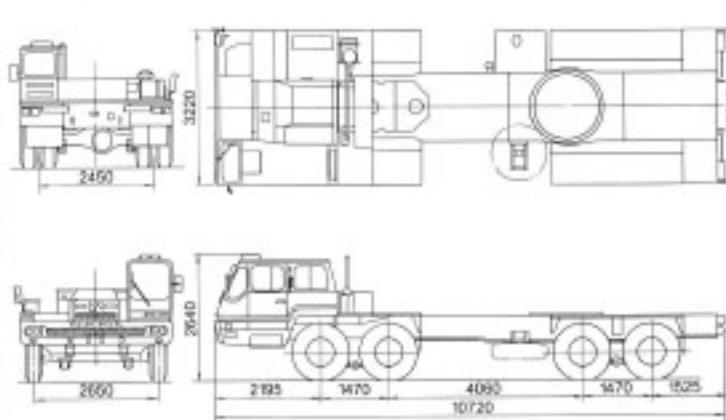
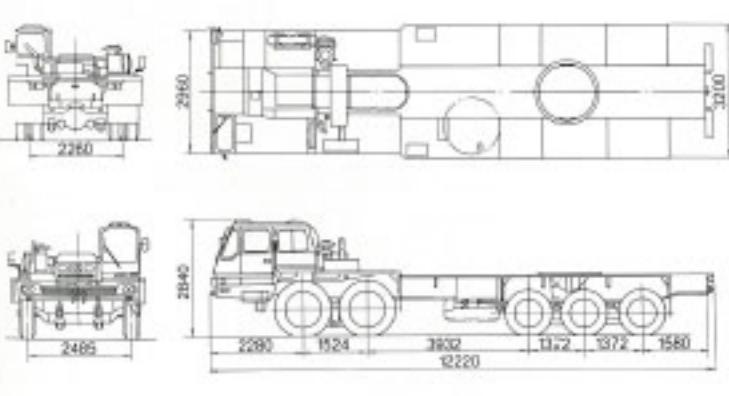
Soon to be marketed.

Specifications

Model	KW30M	KG30R	KG45S	KG52T	KG53T	KU52V	KG53W	KG60W	KH60Y	KG66W**	AZ30D**	
Lifting capacity (ton)	20	25	30	35	40	50	60	70	100	200	20	
Cab type			One-side cab					Full-cab		One-side cab		
Drive	6x4				8x4				10x6	8x4	4x4	
Dimensions												
Overall length (mm)*	9,270	9,575	9,970	10,475	10,210	10,795	10,615	10,810	11,630	12,110	12,220	
Overall width (mm)			2,490		2,820	2,750	2,820	3,240	3,000	3,390	2,990	
Overall height (mm)*	2,465	2,475	2,520	2,605	2,590	2,620		2,635	2,710	2,265	2,800	
Wheelbase (mm)	4,600	4,690	4,940		5,215			5,530	5,850	5,950	6,066	
Front tread (mm)	2,020	2,025	2,000	2,025	2,200	2,270	2,230	2,650	2,480	2,830	2,480	
Rear tread (mm)	1,860	1,870	1,860		2,110			2,450	2,280	2,540	2,260	
Weight												
Carrier weight (kg)*	8,930	8,600	9,050	10,320	12,930	12,470	13,100	18,030	18,870	21,730	23,500	
Crew								2			28,500	
Performance											12,200	
Gradeability (tan θ)*	0.36	0.32	0.28	0.35	0.33	0.30	0.27	0.59	0.36	0.41	0.33	
GvW on the above condition (kg)*	21,570	23,610	27,380	28,435	33,460	35,900	39,000	38,150	47,890	63,000	36,500	
Minimum turning radius (m)	9.5		10.5		11.8			11.9	11.6	12.6	14.5	
Engine												
Model	PE6		PE6T [with turbocharger]					REB		RD10	RE10	
Type								4-cycle, direct injection, water-cooled			PE6	
Number of cylinders	6/in-line							V8		V10	6/in-line	
Bore × stroke (mm)	133×140							135×132		135×125	133×140	
Total piston displacement (cc)	11,670							15,115		17,892	16,894	
Compression Ratio	18.0		16.5					17.0			18.0	
Max. output (PS/rpm)	230/2,300		275/2,300					315/2,300	350/2,500	350/2,300	370/2,200	
Max. torque (kg·m/rpm)	83/1,200		98/1,200					105/1,400		123/1,400	130/1,400	
Fuel								Light oil			83/1,200	
Battery type × numbers			N120×2 (NS150×2, N150×2)						N150×2 or NS150×2 (N120×2)		N120×2 (NS150×2, N150×2)	
Alternator (V·A)	24-35	24-25 (24-35)			24-35				24-25 (24-35)		24-35	
Starter (V·KW)								24-5.5				
Chassis												
Clutch				Air servo hydraulic				system with booster			Torque converter	
Transmission	6-speed, synchro on 2-6 speeds	5-speed, one reverse	6-speed, synchro on 2-6 speeds	5-speed, synchro on 2-5 speeds				5-speed with over-drive synchro on 2-5 speeds	9-speed, one reverse	5-speed, one reverse	6-speed, synchro on 2-6 speeds	
Transmission gear ratio	8.392-5.300-3.312-2.051-1.353-1.000 Rev. 7,673	7.646-4.134-2.530-1.550-1.000 Rev. 6,865	8.392-5.300-3.312-2.051-1.353-1.000 Rev. 7,673	① 8.725-5.279-3.230-1.979-1.277 Rev. 8,768 ② 6.833-4.134-2.530-1.550-1.000 Rev. 6,865				5.706-3.216-1.871-1.000-0.732 Rev. 5,376	13,292-8.255-6.117-4.555-3.367-2.452-1.817-1.353-1.000 Rev. 11,835	5.395-2.997-1.761-1.000-0.734 Rev. 5,421	5.444-3.037-1.888-1.319-1.000-U/95 Rev. 5,185	12,020-8.255-6.117-4.555-3.367-2.452-1.817-1.353-1.000 Rev. 11,835
Auxiliary transmission gear ratio	—	—	—	Synchro ② 1.000 ③ 1.277				2-speed ② 1.054 ③ 1.944	2-speed ② 1.000 ③ 3.367	2-speed ② 1.125 ③ 2.290	2-speed ② 0.964 ③ 1.900	2-speed ② 1.000 ③ 3.367
First differential gear Type-ratio	Hypoid-6.166 (6.833)	Hypoid-6.833	Hypoid-6.833 (6.166)	Hypoid-6.833				Spiral-bevel-3.083	Hypoid-4.333	Spiral-bevel-3.083	Hypoid-2.857	Hypoid-4.111
Second differential gear Type-ratio	—	—	—	—	—			Planetary-3.474	Planetary-1.523	Planetary-3.474	Planetary-3.214	Planetary-2.600
Steering		Linkage-type with power-assistance [1 booster]						Linkage-type with power-assistance [2 boosters]				Linkage type with power-assistance
Main brake								Air brake				
Auxiliary brake								Exhaust brake				
Parking brake			Mechanical, internal expanding							Spring brake on rear wheels		Spring brake acting on all wheels
Frame								Ladder type, channel section side member				
Fuel tank capacity (l)	200	200 or 300	200	200 (300)	200 (mechanical), 300			300	400	300	300	200 (300)
Tire	Front	10.00-20-16PR (11.00-20-14PR)	10.00-20-14PR (10.00-20-16PR)	10.00-20-14PR (11.00-20-14PR)	11.00-20-16PR (12.00-20-18PR)	12.00-20-18PR (14/80R20-18PR)	13.00-20-20PR	14.00-24-24PR	14.00-20-20PR or 14.00-24-24PR	14.00-24-24PR	14.00-24-24PR	14.00R24 or 20.5R25
	Rear	10.00-20-16PR (11.00-20-14PR)	10.00-20-14PR (10.00-20-16PR)	10.00-20-14PR (11.00-20-14PR)	11.00-20-16PR (12.00-20-18PR)	12.00-20-18PR (14/80R20-18PR)	13.00-20-20PR	12.00-20-18PR	14.00-20-20PR	12.00-20-18PR	14.00-24-24PR	14.00R24 or 20.5R25
Suspension (L×W×H)mm	Front	1,250×90×13-8 (1,250×90×13-4, 18-3)	1,250×90×13-4, 18-3	Equalizer beam + Torque rod	1,300×90×13-4, 18-4	Equalizer beam + Torque rod	Equalizer beam + Torque rod	Load sharing type 1,080×80×13-10	Equalizer beam + Torque rod	Rubber suspension type	Load sharing type	1,455×100×24-4
	Rear											1,455×100×24-4

*Item numbers differ with crane specifications. **Soon to be marketed. [] Optionally available.

Specifications are subject to change without notice.

KW30M**KG52T****KG53W****KG66W*****KG30R****KG53T****KG60W****AZ30D*****KG45S****KG52V****KH60Y**

* Soon to be marketed.
These dimensions differ with crane specifications.