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Note: Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications or operating environment. Trucks shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your Mitsubishi forklift truck dealers. Mitsubishi Forklift Trucks for



GRENDÍA

PRESENTED BY:

Internal Combustion Pneumatic Tyre 1.5-3.5 ton

Mitsubishi

GRENDÍA

Series Forklift Trucks





Electronically controlled gasoline engine Capacity rating 1500kg @ 500mm load center

A next generation, higher performance machine Thanks to the application of new technologies the Mitsubishi Grendia is not only easier to spending to the application of new technologies the Mitsubishi Grendia is not only easier to thanks to the application of new technologies are made application of new technologies. The new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which the new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, which is very fuel-efficient and has ultra low emissions, and it is very fuel-efficient and has ultra low emissions. In addition to the new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions. In addition to the new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions. 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In addition to the new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions and has ultra The new Mitsubishi Grendia's engine is very fuel-efficient and has ultra low emissions, which to leither complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards and enhanced either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards. either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards. 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In addition to either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental standards. In addition to either complies with or exceeds the latest international environmental en its newly designed engine, Mitsubishi Forklift Trucks has increased rider comfort and enhanced presence System (IPS), and the safety. For instance, all Grendia forklift trucks incorporate an Integrated Presence and digital monitoring safety. For instance, all Grendia forklift trucks incorporate and displays and digital monitoring safety. For instance, all Grendia forklift trucks incorporate and displays and helps reduce accidents. I CD graphic displays and helps reduce accidents. safety. For instance, all Grendia forklift trucks incorporate an Integrated Presence System (IPS), safety. For instance, all Grendia forklift trucks incorporate an Integrated Presence System. LCD graphic displays and digital monitoring safety. LCD graphic displays and digital monitoring which enhances safety and helps reduce accidents. LCD graphic displays and digital monitoring which enhances safety and helps reduce accidents. LCD graphic displays and digital monitoring which enhances safety and helps reduce accidents.

systems also make the Grendia safer more efficient. It's the forklift of tomorrow that's available today. GRENDIA MITSU

Diesel engine Capacity rating 2500kg @ 500mm load center



MEETS THE ENVIRONMENTAL REQUIREMENTS OF TODAY AND TOMORROW

(HRAIII)







NEW 2007 EMISSION STANDARDS COMPLIANT*: NEW ELECTRONICALLY CONTROLLED GASOLINE ENGINE

Mitsubishi Grendia's advanced gasoline engine, which helped pioneer the standard use of electronically controlled fuel injection and three-way catalytic converters in forklift trucks, has evolved even further. The new Grendia has achieved remarkable environmental controls and complies with all 2007 Emission Standards while still maintaining high performance and reliability levels.

* 2007 Emissions Standard for Specific Special Vehicles (including off-road vehicles) Compliant with Emissions Standard for Specific Special Vehicles

Ministry of the Environment

Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure and Transport





TWO-LEVEL HIGH/LOW SPEED LIMITER

The Grendia's automatic speed limiter can be set to two levels - outdoors (HIGH) and indoors (LOW). Drivers can alternate between the two speed limits at the flick of a switch, helping them to choose the most appropriate fuel efficiency for the location.

* Standard for Electronically Controlled Gasoline Engine Trucks



POWER/SOFT MODE SWITCH

Depending on the task, two power levels can be selected: POWER mode, which maximizes power output and SOFT mode for fuel efficiency and low noise levels. Selecting SOFT mode cuts CO₂ emissions by approximately 13% compared to the POWER mode.

* Standard for Electronically Controlled Gasoline Engine Trucks

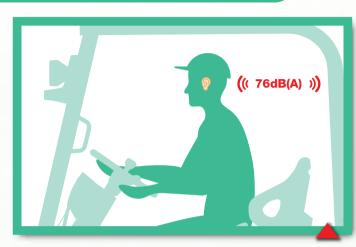
2007 EMISSION STANDARDS COMPLIANT*: HIGH RELIABILITY DIESEL ENGINE

The well-known performance levels of the highly acclaimed Mitsubishi Diesel Engine have been maintained but now come with eco-friendly refinements. The upgraded engines have now achieved low emission levels in compliance with the 2007 Emission Standards without compromising horsepower or reliability.

* 2007 Emissions Standard for Specific Special Vehicles (including off-road vehicles) Compliant with Emissions Standard for Specific Special Vehicles Ministry of the Environment Ministry of Economy, Trade and Industry Ministry of Economy, Trade and Industry

Ministry of Land, Infrastructure and Transport





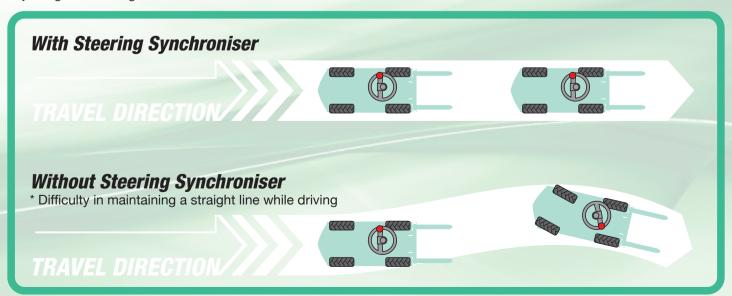
LOW-NOISE DESIGN FOR MAXIMUM COMFORT WITH MINIMAL OPERATOR FATIGUE

With features such as low-noise engine, enhanced soundproofing of the engine compartment and floor level noise dampening, Mitsubishi Forklift Trucks has achieved a quiet working environment both for the operator and the surrounding working environment.

* ISO-equivalent noise level (When diesel engine is in SOFT mode at high idle speed)

STEERING SYNCHRONIZER

With full hydrostatic steering, steering is easy but hard to keep the truck straight without continuously adjusting the steering wheel. Such operation is difficult when truck has to work in confined space like containers. With steering synchronizer, the system actively checks and eliminates the misalignments to keep the truck straight without constantly adjusting the steering wheel.



INTEGRATED PRESENCE SASTEM

Grendia is fitted with Mitsubishi's IPS, an integrated active safety system designed to improve vehicle safety by actively detecting problems before they become accidents. It not only ensures safety during vehicle operation but also prevents errors when the operator is not seated, protecting both the operator and the workplace from potential accidents.



NEW INTEGRATED DIGITAL MONITORS

In the cab, digital displays are used to provide easier monitoring of systems and controls. The digital panel illuminates when the ignition is switched on allowing speed, load weight and system monitors to be checked at a glance.



Mitsubishi Grendia forklift trucks are equipped with mast and travel interlock protection device that is linked to the operator's seat. If the operator is not seated, the mast and (for torque-converter models) the movement of the vehicle itself, is automatically locked in order to prevent injury or damage to property.

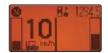
* Note that brakes are not applied in travel interlocking, so trucks can still move on slopes due to gravity.

LIFT LOCK

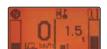
The fork on the Mitsubishi Grendia is automatically locked when the ignition is switched off, so it remains in position even if the lift lever is accidentally bumped or moved.



MITSUBISH



LOAD WEIGHT DISPLAY



optional





- YET ANOTHER GRENDIA HALLMARK

INNOVATIVE AND RELIABLE SAFETY FEATURES HELP PROTECT OPERATORS AND WORKPLACE

NEUTRAL SAFETY

A Neutral Safety device, which prevents the engine from starting unless the forward/backward lever is positioned at neutral, is now built in on all vehicles, including all torque-converter-fitted vehicles and all direct drive vehicles.



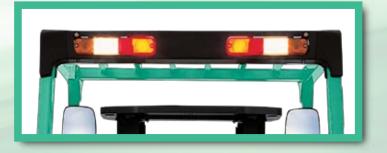
WIDE FORWARD VISIBILITY CLEAR REAR VISIBILITY

Unlike some forklift trucks, Mitsubishi Grendias have wide unobstructed visibility that extends from the tip of the fork to the top of the mast. Greater rear visibility is made possible by the Grendia's compact tail design.

HIGH-MOUNTED REAR COMBINATION LAMP

All Mitsubishi Grendias are installed with rear combination lamps above the head guard that clearly signals braking or stopping to vehicles or persons behind the forklift truck.

* Positions will differ for forklifts requiring vehicle inspection in Japan.





Tight turns are easy with the Grendia thanks to a fully hydraulic power steering fitted with steering synchronizer/mechanism for 100% stationary steering. Its manoeuvrability allows for easy U-turns and navigation in small workspaces.



EXCELLENT PERFORMANCE,

POWERFUL LIFTING GAPAGEE

Mitsubishi Grendias are constructed with a low center of gravity frame that optimised vehicle balance and stability during lifting. That means a greater load capacity with much greater stability. The high-torque, high-power engine maintains a stable lift speed regardless of the load, helping operators to increase productivity.



EXCELLENT LIFTING ABILITY

Lift speed: **640mm/s** (when loaded)

660mm/s (when not loaded) • FGE25ZN

No capacity deration up to a height of 4 meters (2-stage mast)

SOFT LANDINGS

Another exclusive feature found on the Mitsubishi Grendias is soft landing system that activates when the fork nears the ground, automatically protecting loads from hard drops or shocks.

* only for two-stage masts

SMOOTH RUNNING

The high power engine and the high performance transmission are perfectly matched to produce an extremely smooth start/acceleration as well as excellent traction even on uphill slopes. Excellent braking and stopping control is provided by a robust and reliable due-servo system.

SMOOTH ACCELERATION

10m acceleration **3.1 seconds** (unloaded) • FD25N



112

POWERFUL UPHILL ABILITY

12 degree uphill velocity

5.0 km/h (unloaded) • FD25N

111111111

EXCELLENT STEERING ABILITY

Minimum turning radius
1950 mm • FD15N

GRENDIAS ARE EASY TO MANEUVER EVEN IN CRAMPED WAREHOUSES AND DELIVERY BAYS



ASY OPERATION. DRIVER COMFORT.



Suspension seat with hip support mechanism. Ability to adjust position and extent of reclining according to body shape for maximum comfort. Seat belt fitted with warning light. Soft-grip handle makes getting in and out easier.



Electric shift lever can be moved back and forth at the touch of a finger. (for torque-converter models only).



Acrylic roof for comfortable operation in outdoor conditions. Easily installed and uninstalled.



Tiltable steering column



Fully hydraulic power steering
The full hydraulic steering allows for effortless steering
even if truck is in a stationary position.



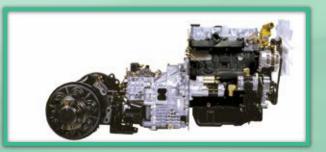
Inching pedal allows delicate movements.



Switches for optional functions positioned on the right side of the dashboard.

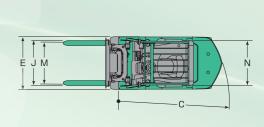


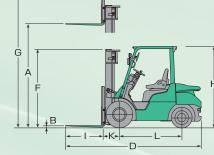
Combination switch integrating indicators and headlight switches.



Power-train full floating structure for excellent vibration reduction. The entire power-train is supported by vibration absorbent rubber mounts.

SPECIFICATIONS





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CHARACTERIST	rics	The second		E-100E-100E-100E-100E-100E-100E-100E-10																											
Type of Truck						DIESEL ENGINE TRUCK										GASOLINE ENGINE TRUCK									ELECTRONICALLY CONTROLLED GASOLINE ENGINE TRUCK						
Model			FD15N	FD18N	FD20CN	FD20N	FD25N	FD30N	FD35N	FG15N	FG15ZN	FG18N	FG18ZN	FG20CN	FG20N	FG20ZN	FG25N	FG25ZN	FG30N	FG35N	FGE15N	FGE18N	FGE20CN	FGE20N F	GE20ZN	FGE25N	FGE25ZN	FGE30N	FGE35N		
Loading Capacity		kg	1500	1750			2500	3000 3500		1500 1750			2000 2500			00	3000 3500		1500 1750			2000		2500		3000	3500				
Load Center			mm	500			500		500			50	00				500			500	1	50	00			500				500	
PERFORMANCE						I	2000		0000						T		0000			1 0000						0000				2000	
Maximum Fork Height			mm /				3000		3000				000				3000		_	3000			000			3000				3000	
Free Fork Height		1	mm [B 115		120	140		145	400	400		15 I 400	570	120	14 		14	-	145			15	120	500	140	500	0.40		145	
38	Lifting	Loaded	mm/s mm/s	630		630 650 660			500 420 530 450		490 560	570 650	490 570 560 650		570 520 650 600		580 520 580 660 600 660		660	460 390 530 450		630 650		630 650	580 640 580 590 660 590		640 660	510	430		
Speeds		Loaded	mm/s	520		520 500			530 420				20	1		520		500		530 420		520			520 500			000	530	420	
-3	Lowering Unloaded		mm/s	500		500			500 400		500				<u> </u>	500		500	400		00			500			500	400			
T-14	Forward Mast		deg	6		6		6		6				6					6		6		6					6			
1110	Mast	Backward	deg	12		12			12		12				12					12		12		12					12		
- 8	Traveling (Powershift)		km/h	19		19			19		19				19					19		19		19						19	
Speeds	Unloaded		km/h	19.5		19.5			19.5		19.5				19.5					19.5		19.5		19.5						19.5	
-	Traveling (Manual) Loaded Unloaded		km/h	19.5		19			19 19.5		19 19.5				19 19.5					19		19 19.5		19				19			
	Powershift	Loaded	km/m	1260	1250	1210	1830	1810	1770	1680	1110	1530	1090	1520	1480	1520	1750	1500	1730	1710	1630		19.5 1710	1670	1690	1860	1690	1870	1860	1750	
Maximum Drawbar Pull	Manual	Loaded	kgf	1180	1160	1130	1500	1480	1460	1380	960	1280	950	1270	1230	1280	1620	1250	1590	1590	1500	1390	1380	1360		1630	1380	1620	1660	1560	
	Powershift	Loaded	%	33	29	25	36	31	25	21	29	41	25	36	31	30	35	25	30	24	20	48	42	36		38	29	33	27	22	
Maximum Gradeability	Manual	Loaded	%	30	27	23	29	24	20	17	24	33	22	29	25	25	32	21	27	22	19	38	34	29	28	33	24	28	24	20	
Turning Radius			mm (C 1950	1980	2020	2200	2230	2380	2440	195	0	19	980	2020	22	00	223	30	2380	2440	1950	1980	2020	2200		2230		2380	2440	
Practical Intersecting Air	isle Width		mm	2065	2080	2105	2195	2215	2325	2365	206	5	20	080	2105	219	95	221	15	2325	2365	2065	2080	2105	2195		2215		2325	2365	
Practical Aisle for Right	Angle Stacking		mm	3650	3680	3735	3955	3985	4170	4230	365	0	36	880	3735	39	55	398	85	4170	4230	3650	3680	3735	3955		3985		4170	4230	
DIMENSIONS				- 1								_					1														
Overall Length	with Standard Tires		mm [3220	3275 1065	3405 1150	3480	3805 1275	3865 1290	318		065	220	3275 1065	34	.05		80	3805 1275	3865 1290	3180	3220	3275 1065	3405	1150	3480		3805 1275	3865 1290	
Width	with Optional Duals		mm	1330		-	1480		1490				330		-		148			1490			30	-		1480			1490	1490	
with Lowered Mast			mm I	F 1990		1990			2015 2130		1990				1990				2015 2130		1990			1990			2015	2130			
Height	Height with Extended Mast (with Backrest)		mm (G 4055		4055			4055		4055				4055			4055		4055			4055			2	1055				
to Top of Overhead Guard		Guard	mm H	H 2065		2065 2074		1	2093 2103		2065				2065 2074			2093 2103		2065		2065	2065 2074			2093	2103				
Forks (Thickness x Width x Length)		mm	I 35x100x920			45x100x920		45x122x1070		35x100x920				45x100x920			50x125x1070		35x100x920		45x100x920			45x122x100							
Fork Spread (Out-to-Out Minimum / Maximum)		mm .	J 200~920		244~920 244~1000		244~1000		200~920				220~920 220~1000			250~1000		200~920		244~920					1~1000						
Front Overhang (Center of Front Axle to Fork Face)		mm I	K 400		415 455			490		400				415 455 460			60	495		400		415	455				490 1700				
Wheelbase	Front, standard tires		mm I	L 1400	890		1400 1600 890 960		1700 1060		1400 890				1400 1600 890 960					1700 1060		1400 890		1400 890	1600 960				1060		
Tread Width Front, optional duals			mm	1025		- 1140			1140		1025				_ 1140					1140		1025		_					1140		
	Rear tyres		mm 1	N 900		900 980			980		900				- 980					980		900		900		980				980	
Ground Clearance	Ground Clearance at Lowest point outer mast		mm	110		110 115			135 150		110				110 115					135	135 150		110		110 115			135 150			
at Center of Wheelbase		mm	150		150 160			190 200		150				150 160				190	200	150		150		160			190 200				
Size Front, standard			6.50-10-10-PR		6.50–10/5.00 7.00–12–12PR – 5.50–15–8PR			28x9-15-12PR 250-15-16PR 6.00-15-10PR		6.50–10–10–PR				6.50–10/5.00 7.00–12–12PR				28x9–15–12PR 250–15–16PR		6.50–10–10–PR		6.50–10 / 5.00		7.00–12–1			28x9–15–12PR 250–15–16PR				
Tyre Size Size Front, optional dual Size Rear		dual		4.50–12–8–PR 5.00–8–8–PR					6.00–15–10PR 6.50–10–10PR 6.50–10–12PR		4.50–12–8–PR 5.00–8–8–PR				- 5.50–15–8PR 5.00–8/3.00 6.00–9–10PR					6.00–15–		4.50–12–8–PR 5.00–8–8–PR		- 5.00.9/3.00		5.50-15-				15–10PR	
WEIGHT	Size Rear			J.00-8-8-PK		5.00-8/3.00	6.00–9–1	IUPK	0.50-10-10PK 6.5	50-10-12PK		5.00-8	-o-rk		5.00-6/3.00		6.00-9-	IUPK		6.50-10-10PR	0.30-10-12PK	5.00-8		5.00-8 / 3.00		6.00–9–1	UFR		6.50-10-10PR	6.50-10-12PR	
TILIOITI	Powershift (standard)	kg	2550	2740	3060	3410	3710	4350	4740	9	490	26	690	3010	3300		3600		4240	4630	2490	2690	3010	3300		3600		4240	4630	
	Manual (standard)		kg	2590	2780	3100	3450	3750	4390	4780		2530		730	3050	3340		3640		4280	4670	2530	2730	3050	3340		3640		4280	4670	
Empty	Empty Powershift (optional dual)		kg	2590	2780	-	3500	3800	4390	4770	2	530	27	730	-	3390		3690		4280	4660	2530	2730	-	3390		3690		4280	4660	
-	Manual (optional dua	al)	kg	2630	2820	-	3540	3840	4430	4810	2	570	27	770	-	3430		3730		4320	4700	2570	2770	-	3430		3730		4320	4700	
BRAKE																															
Service Brake				Hyd.		Hyd.			Hyd.		Hyd.				Hyd.					Hyd.		Hyd.		Hyd.					Hyd.		
Parking Brake				Hand		Hand			Hand		Hand				Hand					Hand		Hand		Hand				Hand			
POWERTRAIN	1										I				1		I		au-							0.000	ava.s	ava =			
	Model			S4Q2		S4Q2	S4S		S4S		GK15	GK21	GK15	GK21	GK21		GK25	GK21	GK25	GK25			21E	GK21E (GAS) 36.8 / 2		GK25E S) 43.1 / 2700	GK21E (GAS) 36.8 / 2700	GK25E (GAS) 43.1 / 2700		43.1 / 2700	
	Max Rated Power /	rom to DIN 70020	Kw/rpm	30 / 2500	30 / 2500 38.1 / 2250		250	38.1 / 2250		26 / 2450 34 / 2200		26 / 2450 34 / 2200		34 / 22	00	40 / 2200 34 / 2200		40 / 2200	40 / 2200		(GAS) 36.8 / 2700 (LPG) 37.5 / 2700		(LPG) 37.5 / 2	700 (LPG		(LPG) 37.5 / 2700	(LPG) 43.8 / 2700	(GAS) 43.1 / 2700 (LPG) 43.8 / 2700			
	Max, Rated Power / rpm to DIN 70020		ps/rpm	40 8 / 2500	/ 2500 40.8 / 25		51.8 / 2250		51.8 / 2250		35.4 / 2450	46.2 / 2200	35.4 / 2450	46.2 / 2200	46.2 / 2200		54.4 / 2200 46.2 / 2200		54.4 / 2200	54.4 / 2200		(GAS) 50.0 / 2700 (LPG) 51.0 / 2700		(GAS) 50.0 / 2 (LPG) 51.0 / 2							
Engine			Nm/m=	rpm 131 / 1800		131 / 1800 185 / 1700		700	185 / 1700		109 / 2000 158 / 1600		109 / 2000 158 / 1600		158 / 1600		186 / 1600 158 / 1600 186 / 1600		106 / 1000	186 / 1600		(GAS) 145 / 1800		(GAS) 145 / 18		(GAS) 167 / 1600 (GAS) 145 / 1800 (GAS) 167 /		(GAS) 167 / 1600	600 (GAS) 167 / 1600		
	Max. Rated Torque / rpm to DIN 70020		Nm/rpm	131 / 1800		131 / 1800 185 / 1700		, 00	185 / 1700		109 / 2000	158 / 1600	109 / 2000	138 / 1600	158 / 16	JUU	100 / 1000	100 / 1000	100 / 1000	186/16	186 / 1600		(LPG) 151 / 1800		300 (LPG	(LPG) 186 / 1600 (LPG) 151 / 1800 (LPG) 186 /		(LPG) 186 / 1600	600 (LPG) 186 / 1600		
			kgm/rpm	13.4 / 1800		13.4 / 1800 18.9 / 1700		700	18.9 / 1700		11.1 / 2000	16.1/ 1600	11.1 / 2000	16.1/ 1600	16.1/ 1600		19.0 / 1600 16.1 / 1		19.0 / 1600	19.0 / 1600		(GAS) 14.8 / 1800 (LPG) 15.4 / 1800		(GAS) 14.8 / 1 (LPG) 15.4 / 1	800 (GAS 800 (LPG	(GAS) 17.0 / 1600 (GAS) 14.8 / 1800 (GAS) 17.0 (LPG) 19.0 / 1600 (LPG) 15.4 / 1800 (LPG) 19.0		(GAS) 17.0 / 1600 (LPG) 19.0 / 1600	1600 (GAS) 17.0 / 1600 1600 (LPG) 19.0 / 1600		
Displacement			cc 2505		2505 3331			3331		1486 2065		1486 2065		2065		2488 2065 24		2488	8 2488		2065		2065				2488				
	Fuel Tank Capacity		l	46		46 66			66		46			46 66					66		46		46 66				66				
Transmission	Type			Powershift / Manual		Powershift / Manual			Powershift / N	Manual	Powershift / Manual				Powershift / Manual					Powershift /	Manual	Powershift		Powershift				Powershift			
-	Number of Speeds			AT:1 / MT:2		AT:1 / MT:2			AT:1 / MT:2		AT:1/MT:2				AT:1 / MT:2					AT:1 / N		AT:1		AT:1				AT:1			
Relief Pressure	Relief Pressure For Attachments		Мра	18.1			18.1		18.1			18	3.1		L		18.1			18.1	1	18.1				18.1			18.1		