



# *Specifications*

**Hino Motors, Ltd.**  
TOKYO, JAPAN

**SPECIFICATIONS**

Spec. No. SS-FS314  
Drawing No. CDRFS340



# HINO 700 Series

6x4, Truck Chassis

- RHD
- 380 PS (Euro-4)
- 28.3 ton GVMR

**RATINGS & AXLE LOAD LIMIT (kg)**

( ) Maker design

	GVM	Front Axle	Rear Axle
Ratings	26,000 (28,300)	7,500	21,800
Axle Load Limit	(STD) Front: 315/80R22.5-156/153 Rear : 295/80R22.5-153/150	7,500	21,800
	(OPT) Front: 12R22.5-16PR Rear : 11R22.5-16PR	6,500	

**CHASSIS DIMENSIONS (mm) :** All dimensions are to standard specifications and unladen chassis

Model		<b>HINO 72638</b>		
Production Code		FS1EMKD	FS1EMKM	FS1ETKA
Application		For dump	For mixer	For cargo
Wheelbase	WB	3,920 + 1,310		5,075 + 1,310
Overall length	OL	8,040		10,760
Overall width		2,490		
Overall Height	OH	3,095		
Cab to rear axle center	CA	3,865		5,020
Rear overhang (at frame end)	ROH	1,290		2,915
Front Chassis Height	HF	1,090		
Rear Chassis Height	HR	1,110		1,070
Road clearance (at diff. case)		245		
Front Tread	FT	2,035		
Rear Tread		1,855		
Turning radius on tire		8,500		10,300
Turning radius on wall to wall		9,200		11,100

**CHASSIS MASS (kg) :** Chassis mass quoted is to standard specifications without spare tire & std. tool set

Chassis Mass	(Total)	8,185	8,200	8,515
	(Front)	4,650	4,665	4,560
	(Rear)	3,530	3,535	3,955

**PERFORMANCE & GEAR RATIOS :** Calculations based on 26.0 ton GVM, 295/80R22.5 tire

Max. Speed (km/h)	Below 90 (controlled by speed limiter)		
Gradeability tanθ (%)	60.0		
Transmission Gear Ratio	Model	ZF 16S221	
	1st	13.804 / 11.539	
	2nd	9.487 / 7.930	
	3rd	6.529 / 5.458	
	4th	4.565 / 3.816	
	5th (Low/High)	3.023 / 2.527	
	6th	2.078 / 1.737	
	7th	1.430 / 1.195	
	8th	1.000 / 0.835	
	Rev.	12.923 / 10.803	
Rear Axle	Model	THD17	
	Gear Ratio	4.100	

<b>ENGINE</b>		<b>SERVICE BRAKE</b>	
1.Model	HINO E13C UK	1.Type	Full air, dual circuit, taper roller type, leading & trailing shoes for front and rear
2.Max. output;(Net)	279 kW {380 PS} at 1,800 r/min	2.Wheel brake ass'y	Drum diameter x Lining width
3.Max. torque;(Net)	1,814 N-m {185 kgf-m} at 1,100 r/min	Front	406.4 x 152 mm
4.Max. engine speed	2,000 r/min	Rear	406.4 x 216 mm
5.Type	Diesel, turbo charged intercooled, 4-cy., vertical, 6-cyl., in-line, overhead camshaft, water cooled	3.Air drier	Equipped
6.Combustion system	Direct injection type	4.ABS system	Equipped
7.Bore and stroke	137 x 146 mm	5.Auto brake shoes adjuster	Equipped
8.Piston displacement	12.913 L	<b>SECONDARY AND PARKING BRAKE</b>	
9.Compression ratio	17.0	1.Type, for FS1EMKD/MKM	Spring brake acting on front and rear frontward wheels, for emergency and parking purpose, manual control
10.Engine oil capacity	37.0 L	for FS1ETKA	Spring brake acting on rear wheels, for emergency and parking purpose, manual control
11.Engine coolant capacity	28.5 L	<b>STEERING</b>	
12.Fuel injection pump Type	Electronic control common rail type	1.Type	Telescopic and tilt steering column with locking device
Governor	Electric governor		Recirculating ball with hydraulic booster integral type
13.Intake system		2.Gear ratio	21.4 - 23.8
Air cleaner	Dual paper elements	<b>RETARDER</b>	
14.Air compressor Type	Single cylinder, water-cooled	1.Type	Hino engine retarder
Bore and stroke	85 x 60 mm	<b>FRONT SUSPENSION</b>	
15. Fly wheel P.T.O.	Equipped(for FS1EMKM only)	1.Type	Semi-elliptic tapered leaf springs with shock absorbers and stabilizer
16. Engine control link	Equipped	2.Dimensions of springs	
17. Insect protection	Equipped	Span	1,500 mm
<b>CLUTCH</b>		Width	90 mm
1.Type	Dry single plate with damper springs	<b>REAR SUSPENSION</b>	
2.Clutch disc ass'y	CS-430 series	1.Type	Semi-elliptic leaf springs with torque rods
3.Facing material	Semi-mold	2.Dimensions of springs	
4.Facing outside diameter	430 mm	Span	1,310 mm
5.Clutch cover ass'y	DSP-430 series	Width	90 mm
6.Control	Hydraulic with air booster	<b>WHEEL AND TIRE</b>	
<b>TRANSMISSION</b>		1.Wheel type	10-stud disc wheels (ISO type)
1.Type 16S221	ZF, sixteen forward and two reverse speeds, overdrive, synchromesh 1st - 16th	2.Rim size, front	22.5 x 9.00 - offset 175 mm
2.Control	Mechanical control with power shift	rear	22.5 x 8.25 - offset 165 mm
<b>PROPELLER SHAFT</b>		3.Tire size, front	315/80R22.5-156/153
1.Propeller shaft ass'y		rear	295/80R22.5-153/150
T/M ~ R/A	Tube type	4.Number of tires	Ten (10) numbers
R/A ~ R/A	Solid type	<b>FUEL TANK</b>	
2.Universal joints	Round bearing type	1.Capacity	300 L
3.Center bearing	1-piece	2.Fuel pre-filter and sedimenter	Equipped
<b>FRONT AXLE</b>		3.Fuel tank cap key	Equipped
1.Front axle ass'y	MF78 series		
2.Type	Reversed Elliot, " " section beam		
<b>REAR AXLE</b>			
1.Type	Tandem axle,dual drive with inter axle differential, full floting single reduction, single speed by hypoid gearings with inter axle differetial lock, "No SPIN"		

<b>CHASSIS FRAME</b>			
1.Type	Ladder-shaped channel section side rails		Fuel gauge
2.Rear chassis width	850 mm		Coolant temperature gauge
3.Max. section (depth x flange x thickness)	300 x 88 x 8.0 mm (for FS1EMKD/MKM) 302 x 88 x 9.0 mm (for FS1ETKA)		Air pressure gauge
4.Tensile strength	540 N/m <sup>2</sup> {55 kgf/m <sup>2</sup> }		2.Warning, pilot lamps and buzzers
5. Hooks	Equipped for front and rear		Engine oil pressure warning lamp and buzzer
<b>CAB</b>			Air pressure warning lamp and buzzer
1. Type	Forward control, all steel welded construction, full floating cab (front:air, rear:air) with electrical oil-pump tilting mechanism		Buck-up warning buzzer
2. Seating capacity	Two		Charging warning lamp
3. Driver's seat	Air Suspension seat		Beam indicator lamp
4. Side passenger's seat	Urethane foam pads, high-back and reclining seat with fabric cover and under tray		Turn signal indicator lamp
5. Center console	Equipped		Parking brake indicator lamp
6. Seat belts	3-point type on driver's & side passenger's seat		Coolant level warning lamp and buzzer
7. Rear view mirrors	Electrically adjustable & heated		Differential lock indicator lamp
8. Windshield wipers	Electric, triple, intermittent and 2-speed		Engine over-run warning buzzer
9. Sun visor and over-head console	Two, for driver and side passenger		Fuel level warning lamp
10. Center over-head console	Equipped		Battery charging pilot lamp
11. Cigarette lighter	Equipped		ABS warning lamp
12. Ventilator	Forced type by electric blower		Engine retarder indicator lamp
13. Car heater and defroster	Equipped		Sedimenter water level warning lamp
14. Sleeping bed	Equipped		Transmission splitter range indicator lamp
15. Car audio	AM/FM radio with cassette tape and CD player		3.Switches
16. Floor mat	Vinyl type		Lighting switch
17. Front air spoiler	Equipped(for FS1ETKA)		Directional indicator, dimmer and passing switch
18. Cab step	Equipped		Wiper and washer switch
19. Trim	Full trim type (side, roof and back)		Hazard lamp switch
20. Electrical power window	Equipped with both side		Fog lamp switch
21. Electrical door lock	Equipped		Dome lamp switch
22. Door pockets	Equipped at both door side		Warning lamp check switch
23. Tire inflator	Not Equipped		Map lamp switch
24. Transmission P.T.O. and P.T.O. control	Equipped(for FS1EMKD only)		Differential lock switch
25. Exterior Sunvisor	Equipped		4.Others
26. Cushioned Rear Lamps	Equipped		One-key starting-stopping
27. Speaker	Equipped with front 3		Throttle control knob
28. Ashtray	Driver and assistant		Horn button
29. Power window	Driver and assistant		<b>ELECTRICAL EQUIPMENT</b>
<b>INSTRUMENTS</b>			1.Type
1.Meter and gauges	km-kg system		24 volt, negative earth
Speedometer with trip meter			2.Batteries
Odometer			Number per vehicle
Tachometer			Capacity
			12 V x 2, series-connection
			432 kC {120 A/h} at 20-hour rate
			3.Alternator
			Type
			With built-in rectifier and voltage regulator
			Capacity
			24 V, 90 A
			4.Starter
			Type
			Pinion shift
			Capacity
			24 V, 6.0 kW
			5.Lamps
			Headlamps
			Fog lamps
			License plate lamp
			Stop/Tail lamps
			Back-up lamp
			Directional indicator and hazard lamps (front, side and rear)
			Reading lamp (Fluorescent lamp)
			Map lamp
			Front end outline marker lamps

OPTIONAL EQUIPMENT	
1. Vertical Exhaust in stainless steel incorporating O.E.M. Muffler	13. Reversing Camera System
2. Alloy Road Wheels Alcoa forged alluminium alloy roadwheels. ( 22.5X8.25 rim and or 22.5X9.00 rim )	14. "Handbrake not applied" audible warning
3. Central Chassis lubrication System	15. Visible "Diff Lock engaged" warning lamp
4. Alloy Fuel Tank 300Ltrs	16. Stainless Steel Lighting Bars: Roof and Front mount
5. Illuminated Headboard	17. Lighting options: Work Lamps Spot Lamps Lightbars
6. Rotating Beacons roof mounted	18. Bodies:
7. Air conditioner	Muckaway Steel or Hardox Tipper
8. Sleeping bed curtain	Tipper Grab
9. Night Heater	Alloy Aggregate
10. Comfort Mattress	Alloy Insulated
11. Front Roof spoiler	Hookloader
12. Hi-Roof Conversion	Concrete Mixer
	Block/Brick Carrier
	Cheese Wedge
	19. Onboard Weighing Systems
	20. Air Horns

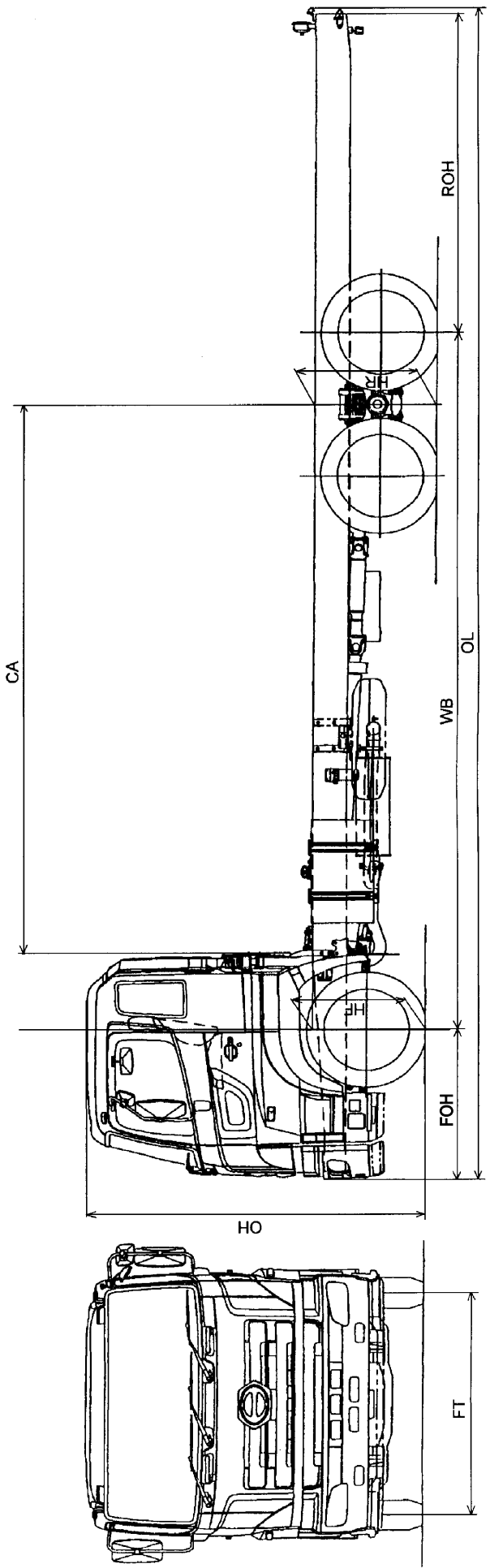
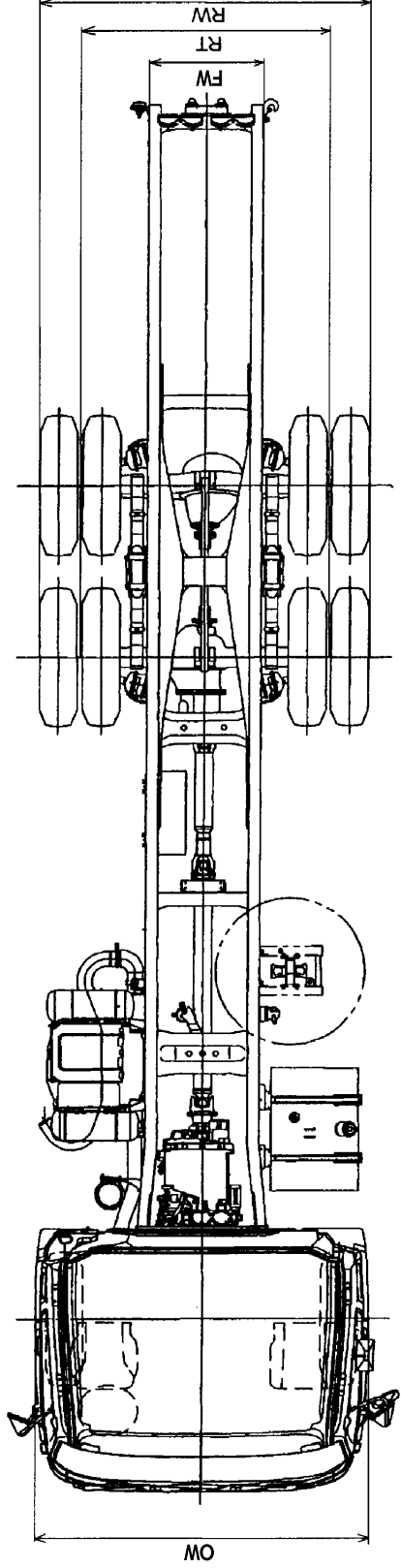
Note: All specifications of the products are with normal manufacturing allowances and tolerances.

Hino Motors, Ltd. reserve the right to alter specifications at any time without previous notice.

Figures of axle capacity can be changed by the operating conditions and specifications of equipments concerned.

When selecting optional equipment, consult Hino technical staff as the adaptation of some of the optional equipment on production line may require an extra lead time.

MODEL	TIRE SIZE		DISC SIZE		DIMENSION(mm)												
	FRONT	REAR	FRONT	REAR	FOH	WB	ROH	OL	CA	OW	RW	FW	FT	RT	OH	HF	HR
FS1EMKD	315R/80R22.5	295/80R22.5	22.5X9.00-175	22.5X8.25-165	1380	3920+1310	1430	8040	3865	2490	2485	850	2035	1855	3095	1090	1110
FS1EMKM					1370	5075+1310	3005	10760	5020						3025	1020	1070
FS1ETKA																	



MODEL

**HINO FS1EMKD/MKM/TKA CHASSIS**

DRAWING No.

**CDRFS340**