



# *Specifications*

**Hino Motors, Ltd.**

TOKYO, JAPAN

**SPECIFICATIONS**

Spec. No. SS-FS366A  
Drawing No. CDRFS473A



# HINO 700 Series

## 6x4, Truck Chassis

- RHD
- 480 PS (EURO5)
- 72.0 ton GCMR
- Rear air suspension

■ **RATINGS & AXLE LOAD LIMIT (kg)**

	GVM	GCM	Front Axle	Rear Axle
Ratings	28,300 *	72,000	7,500	21,000
Axle Load Limit	(STD) 11R22.5-148/145		6,300	21,000
	(OPT) 295/80R22.5-152/148		7,100	
	(OPT) 275/70R22.5-148/145		6,300	

\*: GVM Rating are varied depend on tire size.

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

		<b>HINO 72848</b>
Model		FS1ELLG-VXN
Production Code		For Dump, Full tractor
Application		
Wheelbase	WB	3,655 + 1,325
Overall length	OL	7,695
Overall width	OW	2,490
Overall height	OH	3,010
Cab to rear axle center	CA	3,630
Rear overhang (at frame end)	ROHF	1,285
Front Chassis Height	HF	1,000
Rear Chassis Height	HR	1,040
Road clearance (at front axle)	RC	270
Front Tread	FT	2,050
Rear Tread	RT	1,845
Turning radius on tire		7,900
Turning radius on wall to wall		8,800

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

Chassis Mass	(Total)	7,845
	(Front)	4,630
	(Rear)	3,215

■ **PERFORMANCE & GEAR RATIOS : Calculations based on 72.0 ton GCM, 11R22.5 tire**

Max. Speed (km/h)		100 ※
Gradeability tanθ (%)		31.0
Transmission Gear Ratio	Model	ZF 16AS2630TO
	1st	14.120 / 11.677
	2nd	9.539 / 7.889
	3rd	6.521 / 5.393
	4th	4.565 / 3.776
	5th (Low/High)	3.093 / 2.558
	6th	2.089 / 1.728
	7th	1.428 / 1.181
	8th	1.000 / 0.827
	Rev.	13.074 / 10.812
Rear Axle	Model	DANA40
	Gear Ratio	3.900

※ With speed limiter

## EQUIPMENTS

<p><b>ENGINE</b></p> <p>1.Model HINO E13C VG</p> <p>2.Max. output;(ISO NET) 353 kW {480 PS} at 1,800 r/min</p> <p>3.Max. torque;(ISO NET) 2,157 N·m {220 kgf·m} at 1,100 r/min</p> <p>4.Max. engine speed 1,900 r/min</p> <p>5.Type Diesel, turbo charged intercooled, 4-cy., vertical, 6-cyl. in-line, overhead camshaft, water-cooled</p> <p>6.Combustion system Direct injection type</p> <p>7.Bore and stroke 137 x 146 mm</p> <p>8.Piston displacement 12.913 L</p> <p>9.Compression ratio 17.0</p> <p>10.Engine oil capacity 37.0 L</p> <p>11.Fuel injection pump Type Electronic control common rail</p> <p>12.Intake system Air cleaner Type Paper element Stack type, air intake</p> <p>13.Air compressor Type Single cylinder, water-cooled Bore and stroke 95 x 70 mm</p> <p>14.SCR system (Selective Catalytic Reduction system) AdBlue tank capacity 28.0 L</p>	<p><b>SERVICE BRAKE</b></p> <p>1.Type Full air, dual circuit, "S" cam type, leading &amp; trailing shoes for front and rear</p> <p>2.Wheel brake ass'y Drum diameter x Lining width Front 406.4 x 152 mm Rear 406.4 x 203 mm</p> <p>3.Air dryer Equipped without heater</p> <p>4.ABS system Equipped without ASR</p> <p>5.Auto brake shoes adjuster Equipped</p>
<p><b>CLUTCH</b></p> <p>1.Type Dry single plate with damper springs with clutch auto adjuster</p> <p>2.Clutch disc ass'y CS-430 series</p> <p>3.Facing material Mold type (non-asbestos)</p> <p>4.Facing outside diameter 430 mm</p> <p>5.Clutch cover ass'y DSP-430 series</p> <p>6.Control Hydraulic with air booster</p>	<p><b>RETARDER</b></p> <p>1.Type Hino engine retarder + Transmission "INTARDER"</p> <p><b>SECONDARY AND PARKING BRAKE</b></p> <p>1.Type Spring brake acting on front and rear frontward wheels, for emergency and parking purpose, manual control</p>
<p><b>TRANSMISSION</b></p> <p>1.Type ZF, sixteen forward and two reverse speeds, overdrive, synchromesh 1st - 16th</p> <p>2.Control Mechanical auto type</p>	<p><b>STEERING</b></p> <p>1.Type Telescopic and tilt steering column with locking device Recirculating ball with hydraulic booster integral type</p> <p>2.Gear ratio 23.4 - 25.2</p>
<p><b>PROPELLER SHAFT</b></p> <p>1.Propeller shaft ass'y T/M ~ R/A Tube type R/A ~ R/A Solid type</p> <p>2.Universal joints Round bearing type</p>	<p><b>FRONT SUSPENSION</b></p> <p>1.Type Semi-elliptic tapered leaf springs with double acting shock absorbers and stabilizer</p> <p>2.Dimensions of springs Span 1,700 mm Width 90 mm</p>
<p><b>FRONT AXLE</b></p> <p>1.Front axle ass'y MF78IR series</p> <p>2.Type Reversed Elliot, "I" section beam</p>	<p><b>REAR SUSPENSION</b></p> <p>1.Type Air bag suspension with double acting shock absorbers</p>
<p><b>REAR AXLE</b></p> <p>1.Type Tandem axle, dual drive with inter axle differential and manual differential lock, full floating single reduction, single speed by hypoid gearings</p>	<p><b>WHEEL AND TIRE</b></p> <p>1.Wheel type 10-stud disc wheels (ISO type)</p> <p>2.Rim size 22.5 x 8.25 - offset 165 mm (Steel wheel)</p> <p>3.Tire size 11R22.5-148/145</p> <p>4.Number of tires Ten (10) numbers (Excluding spare tire)</p> <p><b>FUEL TANK</b></p> <p>1.Capacity 390 L</p> <p>2.Fuel pre-filter and sedimenter Equipped</p> <p><b>CHASSIS FRAME</b></p> <p>1.Type Ladder-shaped channel section side rails</p> <p>2.Rear chassis width 840 mm</p> <p>3.Max. section (depth x flange x thickness) 300 x 90 x 8.0 mm</p> <p>4.Tensile strength 620 N/mm<sup>2</sup> {63 kgf/mm<sup>2</sup>}</p> <p>5.Hooks Equipped for front (Removable type)</p>

<p><b>■ CAB</b></p> <p>1. Type Forward control, all steel welded construction, full floating cab suspension (front: air, rear: coil) with hand-operated oil-pump tilting mechanism</p> <p>2. Seating capacity Two</p> <p>3. Driver's seat ISRI 6860 7-way adjustable built-in seat belt</p> <p>4. Assistant's seat Urethane foam pads, high back, reclining only</p> <p>5. Seat cover Fabric</p> <p>6. Air suspension seat Driver's only</p> <p>7. Seat belts 3-point type on driver's and assistant's seat</p> <p>8. Center console Equipped</p> <p>9. Outside mirror Two, flat type with heater and remote control</p> <p>10. Side under mirror Equipped with heater</p> <p>11. Mirror stay Door mounting</p> <p>12. Windshield wipers Electric, triple, intermittent and 2-speed</p> <p>13. Sun visor and over-head console Driver's only</p> <p>14. Ventilator Forced type by electric blower</p> <p>15. Car heater Equipped</p> <p>16. Car audio Antenna only</p> <p>17. Floor mat Vinyl type</p> <p>18. Air inlet filter Mesh type</p> <p>19. Cab step Equipped</p> <p>20. Trim Full trim type (side, roof and back)</p> <p>21. Door lock Key less entry</p> <p>22. Cab pockets Equipped at both door side and assistant's seat</p> <p>23. Ash tray Driver's only</p> <p>24. Cruise control Equipped</p> <p>25. Radiator grille Equipped (Paint)</p> <p>26. Quarter window garnish Equipped</p> <p>27. Foot rest Equipped</p> <p>28. Air bag system Equipped</p>		<p>Beam indicator lamp</p> <p>Check engine warning lamp</p> <p>Battery discharge warning lamp</p> <p>Turn signal indicator lamp</p> <p>Parking brake indicator lamp</p> <p>Coolant level warning lamp and buzzer</p> <p>Differential lock indicator lamp</p> <p>Exhaust brake indicator lamp</p> <p>Fuel filter water level warning lamp</p> <p>ABS warning lamp</p> <p>Seat belt warning lamp</p> <p>Air bag warning lamp</p> <p>Trailer brake indicator lamp</p> <p>Engine retarder indicator lamp</p> <p>Transmission "INTARDER" indicator lamp</p> <p>AdBlue level warning lamp</p> <p>3.Switches</p> <p>Fog lamp switch</p> <p>Inter axle differential lock switch</p> <p>Mirror heater switch</p> <p>Remote control mirror switch</p> <p>Engine retarder check and warm-up switch</p> <p>Brake blending switch</p> <p>4.Others</p> <p>Throttle control knob</p> <p>Horn button</p>
<p><b>■ INSTRUMENTS</b></p> <p>1.Meter and gauges km-kg system</p> <p>Speedometer with trip meter</p> <p>Odometer</p> <p>Tachometer</p> <p>Fuel gauge</p> <p>Coolant temperature gauge</p> <p>Air pressure gauge</p> <p>Shift indicator</p> <p>AdBlue gauge</p> <p>2.Warning, lamps and buzzers</p> <p>Engine over-run warning buzzer</p> <p>Engine oil pressure warning lamp and buzzer</p> <p>Air pressure warning lamp and buzzer</p>		<p><b>■ ELECTRICAL EQUIPMENT</b></p> <p>1.Type 24 volt, negative earth</p> <p>2.Batteries</p> <p>Number per vehicle 12 V x 2, series-connection</p> <p>Capacity 120 A·h {432 kC} at 20-hour rate</p> <p>3.Alternator</p> <p>Type With built-in rectifier and voltage regulator</p> <p>Capacity 24 V, 60 A</p> <p>4.Starter</p> <p>Type Pinion shift</p> <p>Capacity 24 V, 6.0 kW</p> <p>5.Lamps</p> <p>Headlamps</p> <p>Fog lamp (White halogen)</p> <p>Cornering lamp</p> <p>Side marker lamp</p> <p>Side flasher lamp</p> <p>Stop/Tail lamps</p> <p>Back-up lamp</p> <p>Directional indicator and hazard lamps (front, side and back)</p> <p>End out marker lamps</p> <p>Map lamp</p> <p>Step lamp (Driver's only)</p> <p>6.Horn Air horn (EC type)</p> <p>7.Back up buzzer Equipped</p>
		<p><b>■ TRAILER EQUIPMENTS</b></p> <p>1. Trailer hand brake Equipped</p>

■ **OPTIONAL EQUIPMENTS**

SS-FS366A

<p>■ <b>ENGINE</b></p> <p>1. Air cleaner <input type="checkbox"/> Dual paper element</p>	<p>13. Power window <input type="checkbox"/> Equipped</p>
<p>■ <b>SERVICE BRAKE</b></p> <p>1. Air dryer <input type="checkbox"/> Equipped with heater</p>	<p>14. Sleeping bed <input type="checkbox"/> Standard type</p> <p>15. Sleeping bed curtain <input type="checkbox"/> Equipped</p> <p><input type="checkbox"/> Equipped with round type</p>
<p>■ <b>WHEEL AND TIRE</b></p> <p>1. Tire size <input type="checkbox"/> 295/80R22.5-152/148 <input type="checkbox"/> 275/70R22.5-148/145</p> <p>2. Rim size <input type="checkbox"/> 22.5 x 8.25 - offset 165 mm (Aluminum wheel)</p> <p>3. Spare tire <input type="checkbox"/> Equipped</p> <p>4. Spare tire carrier <input type="checkbox"/> Not equipped <input type="checkbox"/> Equipped (temporary bracket) <input type="checkbox"/> Equipped (set for without Aluminum wheel)</p> <p>5. Tire inflator <input type="checkbox"/> Equipped</p>	<p>16. Car audio <input type="checkbox"/> AM/FM radio with clock <input type="checkbox"/> AM/FM radio with CD player</p> <p>17. Speaker <input type="checkbox"/> Driver + assistant <input type="checkbox"/> Driver + assistant + center</p> <p>18. Cigarette lighter <input type="checkbox"/> Equipped</p> <p>19. Ash tray <input type="checkbox"/> Driver + assistant</p>
<p>■ <b>CAB</b></p> <p>1. Cab tilt system <input type="checkbox"/> Electrical oil-pump tilting mechanism</p> <p>2. Cab mounting type <input type="checkbox"/> Air suspension (front and rear)</p> <p>3. Seating capacity <input type="checkbox"/> Three</p> <p>4. Center seat <input type="checkbox"/> Equipped with tray (set for three seating capacity)</p> <p>5. Center over-head console <input type="checkbox"/> Equipped</p> <p>6. Center console <input type="checkbox"/> Not equipped (set for three seating capacity)</p> <p>7. Floor mat <input type="checkbox"/> Carpet type</p> <p>8. Sun visor and over-head console <input type="checkbox"/> Two, for driver's and assistant's</p> <p>9. Air conditioner <input type="checkbox"/> Equipped</p> <p>10. Front air spoiler <input type="checkbox"/> Equipped <input type="checkbox"/> Equipped (Plating)</p> <p>11. Radiator grille <input type="checkbox"/> Equipped (Plating)</p> <p>12. Insect protection <input type="checkbox"/> Equipped</p>	<p>■ <b>INSTRUMENTS</b></p> <p>1. Instrument panel <input type="checkbox"/> Wood tone type</p> <p>2. Tachograph <input type="checkbox"/> One day use <input type="checkbox"/> Seven days use <input type="checkbox"/> Revolution and seven days use</p>
	<p>■ <b>ELECTRICAL EQUIPMENT</b></p> <p>1. Battery capacity <input type="checkbox"/> 150 A·h {540 kC} at 20-hour rate</p> <p>2. Alternator <input type="checkbox"/> 24 V, 90 A</p> <p>3. Reading lamp <input type="checkbox"/> Fluorescent lamp</p> <p>4. Electrical converter <input type="checkbox"/> 12V (harness type)</p> <p>5. Headlamp leveling <input type="checkbox"/> Manual type</p> <p>6. Discharge headlamps <input type="checkbox"/> Equipped (with headlamp leveling and headlamp cleaner)</p> <p>7. Headlamp cleaner <input type="checkbox"/> Equipped</p> <p>8. Engine start device <input type="checkbox"/> 2kW intake heater</p>
	<p>■ <b>OTHERS</b></p> <p>1. Transmission PTO and PTO control <input type="checkbox"/> Equipped</p> <p>2. Rear hook <input type="checkbox"/> Equipped</p> <p>3. Fuel tank capkey <input type="checkbox"/> Equipped</p>

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

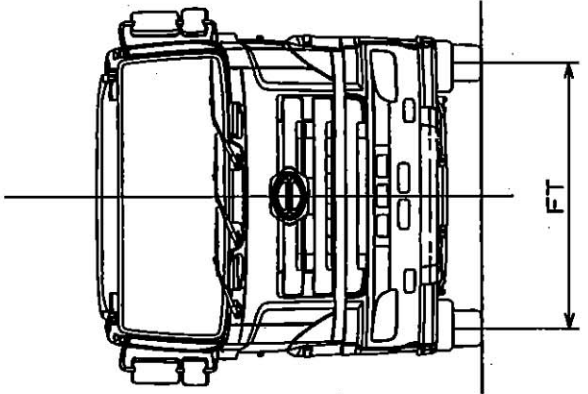
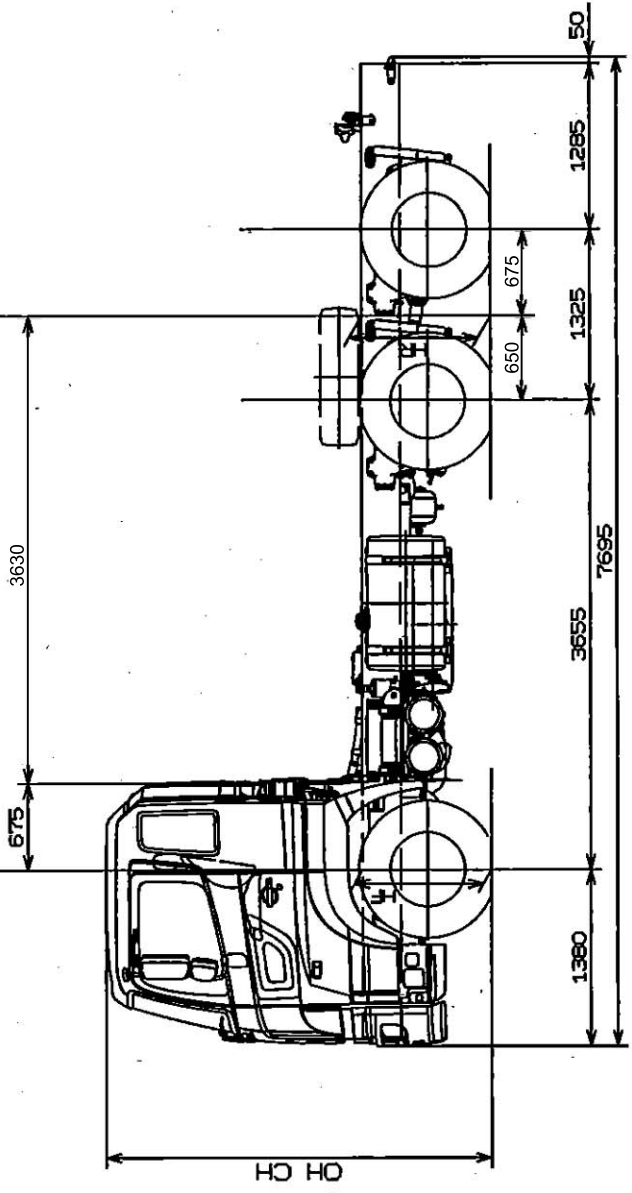
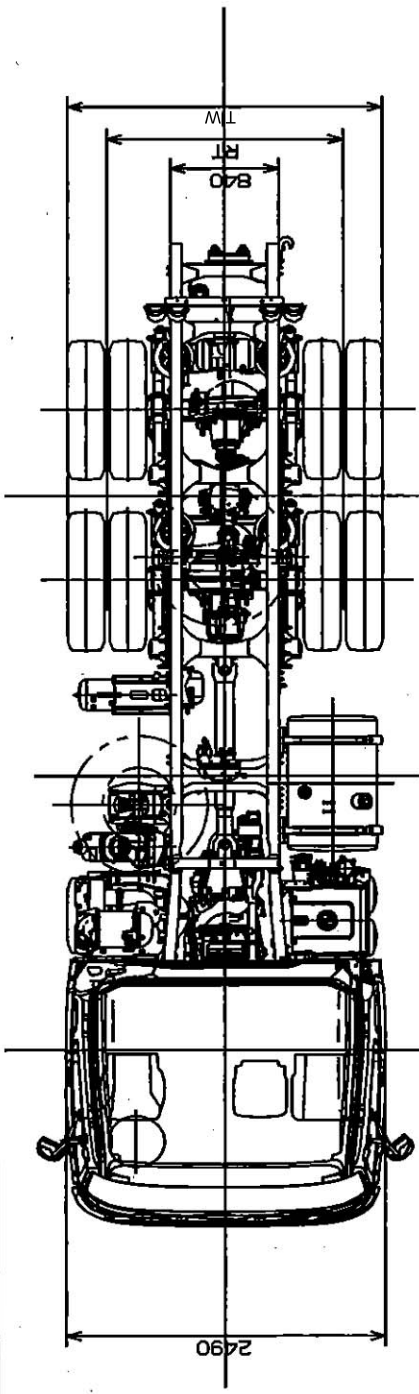
Hino Motors, Ltd. reserves the right to alter specifications at any time without prior notice

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.

※ AdBlue® is registered trademark of the Verband der Automobilindustrie e.V (VDA).

MODEL	TIRE		DISC		DIMENSIONS(mm)							
	FRONT	REAR	FRONT	REAR	OH	CH(OH)	HF	HR	FT	RT	TW	
FS1ELLG-VXN	11R22.5	11R22.5	22.5X8.25		3010	3010	1000	1040	2050	1845	2455	
	295/80R22.5	295/80R22.5	Steel Wheel		3010	3010	1000	1035	2050	1845	2475	
	275/70R22.5	275/70R22.5			2970	2970	960	995	2050	1845	2450	
	11R22.5	11R22.5	22.5X8.25		3010	3010	1000	1040	2070	1865	2475	
	295/80R22.5	295/80R22.5	Aluminum Wheel		3010	3010	1000	1035	2070	1865	2495	
	275/70R22.5	275/70R22.5			2970	2970	960	995	2070	1865	2470	



DRAWING No. CDRFS473A

HINO FS1ELLG CHASSIS

MODEL