

# KOMATSU®

## HM350-2 With Tier 3 Engine

**GROSS HORSEPOWER**

304 kW 408 HP

**NET HORSEPOWER**

294 kW 394 HP

**MAXIMUM GVW**

63440 kg 139,900 lb

**HM  
350**

ARTICULATED DUMP TRUCK



Photo may include optional equipment.

# WALK-AROUND

*The HM350-2 with the new EPA Tier 3 and EU Stage 3A emissions certified “ecot3” engine offers all around maximum productivity with more horsepower and many features that enhance efficiency, while reducing maintenance costs. From rough terrain construction sites to landfills, the HM350-2 has the competitive advantage.*

*Tiltable cab* can be tilted rearward 32° to provide easy service.

### **Wide, spacious cab with excellent visibility**

- The wide cab offers a comfortable operator and passenger environment
- Viscous mounts support the cab while absorbing vibrations and noise
- Low-noise cab through improved sealing with integrated floor  
Interior noise level **76 dB(A)**
- Additional front under view mirrors provide excellent visibility
- Air suspension seat is standard
- Power windows
- Electric heated rear window

### **High performance and environment-friendly SAA6D140E-5 ecot3 engine**

- Gross horsepower 304 kW **408 HP**
- North American EPA Tier 3 and EU Stage 3A emissions certified
- Engine power mode selection system realizes both greater productivity and improved fuel economy
- Higher engine output and torque improve productivity in all applications



### **Fully hydraulic articulated steering**

- Light and easy operation
- Minimum turning radius 8.6 m **28'3"**
- Tilt and telescoping steering column fits any operator



KOMTRAX equipped machines can send location, SMR and operation maps to a secure website utilizing wireless technology. Machines also relay error codes, cautions, maintenance items, fuel levels, and much more.

**GROSS HORSEPOWER**  
304 kW **408 HP** @ 2000 rpm

**NET HORSEPOWER**  
294 kW **394 HP** @ 2000 rpm

**MAXIMUM GVW**  
63440 kg **139,900 lb**

***Komatsu designed, electronically controlled transmission for a comfortable ride.***

F6-R2 counter-shaft type transmission with K-ATOMiCS (Komatsu Advanced Transmission with Optimum Modulation Control System). Transmission shift hold button optimizes the operator control or the transmission will automatically shift through all the gears.

***Easy-to-load body***

- Heaped capacity 19.8 m<sup>3</sup> **25.9 yd<sup>3</sup>**
- Low loading height 2975 mm **9'9"**
- High strength body constructed of thick wear-resistant steel having 400 Brinell hardness



Photo may include optional equipment

***Interaxle & differential locks provide excellent traction in rough terrain.***

The oil-cooled multiple-disc interaxle lock and differential locks can be turned on and off during travel. In addition, the differential locks can lock up all three axle's differentials 100% for maximum traction.



***Hydro-pneumatic trailing arm suspension for all terrains.***

The hydro-pneumatic suspension in both front and rear suspensions assures a comfortable ride even over rough terrain and keeps the tires on the ground at all times.

***High capacity, reliable, continuously cooled, wet type multiple-disc brakes and retarder combination.***

- Fully hydraulic controlled wet multiple-disc service brakes
- Retarder Absorbing Capacity (continuous descent)  
444 kW **595 HP**

## PRODUCTIVITY FEATURES

*The combination of high horsepower and an efficient engine with low emissions delivers maximum productivity at the lowest cost.*



Komatsu's new "ecot3" engines are designed to deliver optimum performance under the toughest of conditions, while meeting the latest environmental regulations. This engine is Tier 3 EPA and EU Stage 3A emissions certified. "ecot3" — ecology and economy combined with Komatsu technology to create a high performance engine without sacrificing power or productivity.

### High Performance Komatsu SAA6D140E-5 Engine

This engine delivers faster acceleration and higher travel speeds with high horsepower per ton. Advanced technology, such as Common Rail Injection system (CRI), air-to-air aftercooler, and an efficient turbo-charger enables the engine to be North American EPA Tier 3 and EU stage 3A emissions certified. High torque at low speed, impressive acceleration, and low fuel consumption ensure maximum productivity.

### Engine Power Mode Selection System

The system allows selection of the appropriate mode between two modes <Power mode > or <Economy mode> according to each working condition. The mode is easily selected with a switch in the operator's cab.

#### Power mode

Great productivity can be attained by taking a full advantage of high output power. It is appropriate for job sites where high production under high ground resistance is required.

#### Economy mode

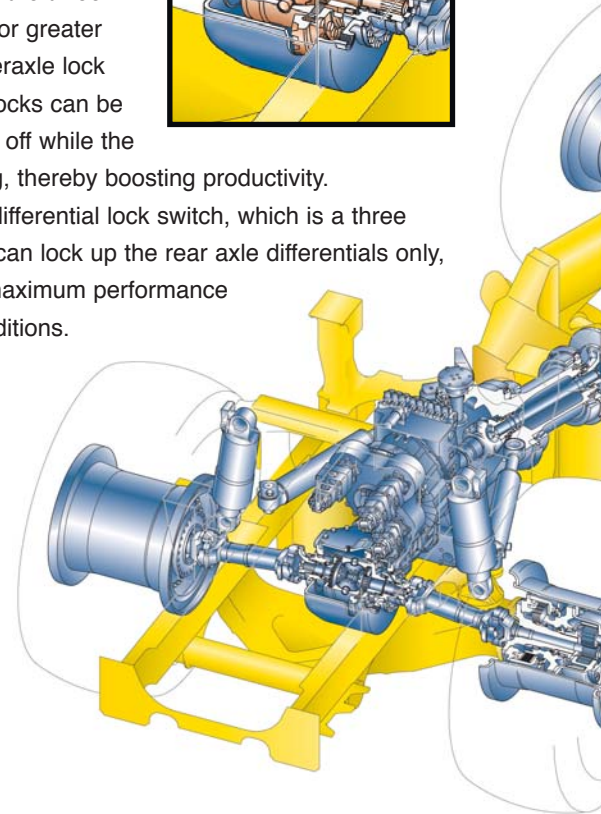
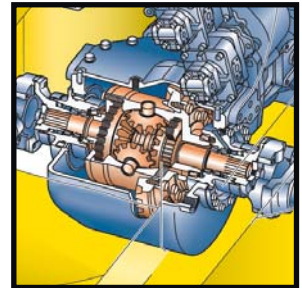
Engine speeds for the maximum horsepower output, downshift, and upshift are set to a lower level. It is appropriate for lighter work applications.

### Komatsu Designed Electronically Controlled Countershaft Transmission

The Komatsu designed Electronically Controlled Transmission with K-ATOMiCS has been a proven success in Komatsu's rigid dump trucks. The electronic clutch modulation system ensures proper clutch pressure when the clutch is engaged. The total control system controls both the engine and transmission by monitoring the vehicle conditions. This high technology system assures smooth shifts without shock and maximizes power train life.

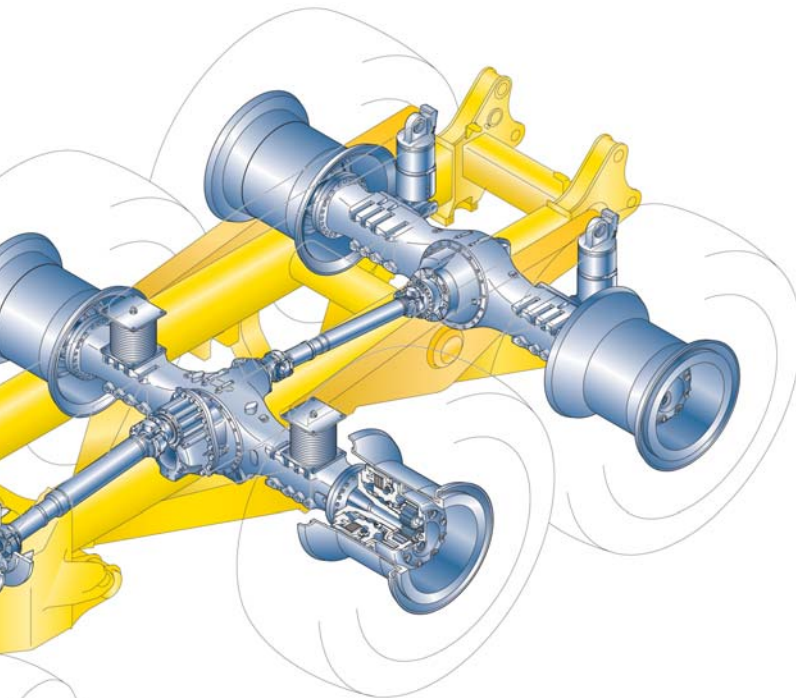
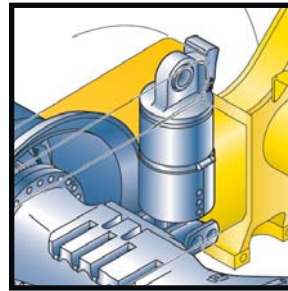
### Komatsu Designed Interaxle and Differential Locking Systems

The full-time six-wheel drive system reduces slippage. A wet multiple-disk interaxle clutch also locks the three axles in unison for greater traction. The interaxle lock and differential locks can be switched on and off while the truck is travelling, thereby boosting productivity. In addition, the differential lock switch, which is a three position switch, can lock up the rear axle differentials only, or all axles for maximum performance in the worst conditions.



**Hydro-Pneumatic Trailing Arm Suspension**

The hydro-pneumatic suspension has been proven on Komatsu's rigid dump trucks. The front axle hydro-pneumatic suspension employs a "De Dion" type design. The suspension is a trailing arm design which allows the truck to ride smoothly. The rear-axles are mounted on a dynamic equalizer structure equipped with hydro-pneumatic suspension. The entire vehicle's hydro-pneumatic suspension delivers a comfortable ride and maximizes productivity.



**Hydraulically Controlled Wet Multiple-Disc Brakes and Retarder**

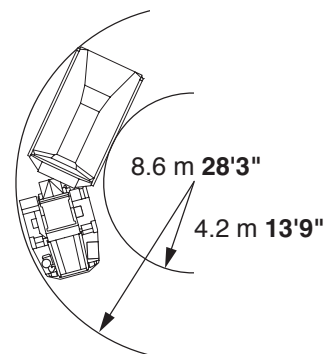
Wet multiple-disc brakes have been proven on Komatsu dump trucks and wheel loaders ensuring highly reliable and stable brake performance. The large-capacity, continuously cooled, wet-multiple disc brakes also function as a highly responsive retarder which gives the operator greater confidence when travelling downhill. Retarder Absorbing Capacity (continuous descent): 444kW **595HP**.

**Large Capacity Body and Box Section Frame Structure**

The 19.8 m<sup>3</sup> **25.9 yd<sup>3</sup>** heaped capacity body is among the highest capacity in its class. The low loading height of 2975 mm **9'9"** enables easy loading. The body is built of high strength wear-resistant steel with a Brinell hardness of 400, and the body shape provides excellent load stability and retains the load. Rugged enough for the toughest jobs, the HM350's frame is designed using a rigid box structure with connecting torque tubes made of high strength low alloy steel.

**Articulated Steering**

Fully hydraulic articulated steering offers low-effort operating performance and maneuverability. A minimum turning radius of only 8.6 m **28'3"** provides ability to work in tight areas.



# OPERATOR ENVIRONMENT

*The Komatsu cab is a state-of-the-art, wide comfortable cab. The low level of vibration and noise, plus the excellent visibility, ensure maximum productivity from the operator.*

### Low-Noise Designed Cab

Integrated cab and floor provide an airtight cab. Engine compartment is also sealed. The low noise and sound insulated muffler/exhaust pipe contribute to reducing sound levels. The combined features offer a quiet and comfortable operator environment.

### Wide, Spacious Cab with Excellent Visibility

The wide cab provides a comfortable space for the operator and a full size buddy seat. Large electrically operated windows and the operator's seat positioned to the left side ensures excellent visibility.

### Ergonomically Designed Cab

The ergonomically designed operator's compartment makes it very easy and comfortable for the operator to use all the controls. The result is more confident operation by operators for greater productivity.

The front under view mirrors are increased to three from one, and the rear view mirrors increased to four from two.

Newly employed laminated glass in the windshield has been installed. In addition, electric heated rear window facilitates defrosting.



### Easy-to-See Instrument Panel

The instrument panel makes it easy to monitor critical machine functions. In addition, a caution light warns the operator of any problems that may occur. This Komatsu on-board monitoring system makes the machine very friendly and easy to service.

### Steering Wheel and Pedals

Low effort pedals reduce operator fatigue when working continuously for long periods. The tiltable, telescoping steering column enables operators to maintain the optimum driving position at all times.



### Built-In ROPS/FOPS Level 2

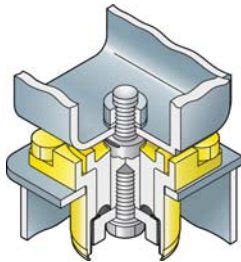
These structures conform to OSHA/MSHA requirements.

### Hydro-Pneumatic Suspension for All Terrains

The hydro-pneumatic suspension, for both front and rear axles, assures a comfortable ride even over rough terrain and ensures maximum productivity and operator confidence.

### Viscous Cab Mounts

Viscous mounts reduce the noise transmitted to the cab and achieve a quiet 76 dB(A) noise level.



### Air Suspension Seat Is Standard

The air suspension, fabric-covered seat, which is adjustable to the operator's weight, is provided as standard. The air suspension seat dampens vibrations transmitted from the truck and reduces operator fatigue as well as holding the operator securely to assure confident operation.

### Electric Body Dump Control Lever

The low effort lever makes dumping easier than ever.

### Supplementary Steering and Secondary Brakes

Supplementary steering and secondary brakes are standard features.



# EASY MAINTENANCE

*The HM350-2 has been designed to keep service time down and productivity up with a reduced number of grease points, easy access to filters, and longer intervals between oil changes.*

### Tiltable Cab

The cab can be tilted rearward 32° to provide easy maintenance/service for the engine and transmission.

**Note:** An external hydraulic pump and cylinder is required to tilt the cab or a service crane can be used after easily removing only eight bolts.

### Fewer Grease Points

The number of grease points are minimized by using maintenance-free rubber bushings.

### Extended Service Intervals

In order to minimize operating costs, service intervals have been extended:

- Engine oil 500 hours
- Transmission oil 1000 hours
- Engine oil filters 500 hours
- Transmission oil filters 1000 hours

### Shields and Guards

The following shields and guards are provided as standard:

- Rear window grill
- Engine underguard
- Transmission underguard
- Driveline guards, front and rear
- Exhaust thermal shields
- Front and rear tire mud flaps





# SPECIFICATIONS



### ENGINE

Model ..... Komatsu SAA6D140E-5  
 Type ..... Water-cooled, 4-cycle  
 Aspiration ..... Turbo-charged, after-cooled, cooled EGR  
 Number of cylinders ..... 6  
 Bore ..... 140 mm **5.51"**  
 Stroke ..... 165 mm **6.50"**  
 Piston displacement ..... 15.24 ltr **930 in<sup>3</sup>**  
 Horsepower  
     SAE J1995 ..... Gross 304 kW **408 HP**  
     ISO 9249 / SAE J1349 ..... Net 294 kW **394 HP**  
 Rated rpm ..... 2000 rpm  
 Fan drive type ..... Mechanical  
 Maximum torque ..... 203 kg·m **1,468 lb. ft** at 1400 rpm  
 Fuel system ..... Direct injection  
 Governor ..... Electronically controlled  
 Lubrication system  
     Method ..... Gear pump, force-lubrication  
     Filter ..... Full-flow type  
 Air cleaner ..... Dry type with double elements and  
     precleaner (cyclopack type), plus dust indicator  
 EPA Tier 3 and EU stage 3A emissions certified.



### TRANSMISSION

Torque converter ..... 3-elements, 1-stage, 2-phase  
 Transmission ..... Full-automatic, counter-shaft type  
 Speed range ..... 6 speeds forward and 2 reverse  
 Lockup clutch ..... Wet, single-disk clutch  
 Forward ..... Torque converter drive in 1st gear,  
     direct drive in 1st lockup and all higher gears  
 Reverse ..... Torque converter drive and direct drive in all gear  
 Shift control ..... Electronic shift control with automatic  
     clutch modulation in all gear  
 Maximum travel speed ..... 57.1 km/h **35.5 mph**



### AXLES

Full time all wheel drive with 100% differential lock in all axles.  
 Final drive type ..... Planetary gear  
 Ratios:  
     Differential ..... 3.231  
     Planetary ..... 4.941



### SUSPENSION SYSTEM

Front ..... Hydro-pneumatic suspension  
 Rear ..... Combined hydro-pneumatic  
     and rubber suspension system



### STEERING SYSTEM

Type ..... Articulated type, fully hydraulic power steering  
     with two double-acting cylinders  
 Supplementary steering ..... Automatically actuated,  
     electrically powered  
 Minimum turning radius, wall to wall ..... 8.6 m **28'3"**  
 Articulation angle ..... 45° each direction



### BRAKES

Service brakes ..... Full-hydraulic control, oil-cooled  
     multiple-disc type on front and center axles  
 Parking brake ..... Spring applied, caliper disc type  
 Retarder ..... Front and center axle brakes act as retarder



### MAIN FRAME

Type ..... Articulated type, box-sectioned  
     construction on front and rear  
     Connected by strong torque tubes.



### BODY

Capacity:  
     Struck ..... 14.6 m<sup>3</sup> **19.1 yd<sup>3</sup>**  
     Heaped (2:1, SAE) ..... 19.8 m<sup>3</sup> **25.9 yd<sup>3</sup>**  
 Payload ..... 32.3 metric tons **35.6 U.S. tons**  
 Material ..... 130 kg/mm<sup>2</sup> **185,000 psi**  
     high tensile strength steel  
 Material thickness:  
     Bottom ..... 16 mm **0.63"**  
     Front ..... 8 mm **0.31"**  
     Sides ..... 12 mm **0.47"**  
 Target area  
     (inside length x width) ..... 5495 mm x 2935 mm **18'0" x 9'8"**  
 Heating ..... Exhaust heating (option)



### HYDRAULIC SYSTEM

Hoist cylinder ..... Twin, 2-stage telescopic type  
 Relief pressure ..... 20.6 Mpa 210 kg/cm<sup>2</sup> **2,990 psi**  
 Hoist time ..... 12 sec



### CAB

Dimensions comply with ISO 3471 and SAE J1040-1988c ROPS  
 (Roll-Over Protective Structure) standards



### WEIGHT (APPROXIMATE)

Empty weight ..... 31060 kg **68,500 lb**  
 Gross vehicle weight ..... 63440 kg **139,900 lb**  
 Weight distribution:  
     Empty: Front axle ..... 57.4%  
         Center axle ..... 21.6%  
         Rear axles ..... 21.0%  
     Loaded: Front axle ..... 31.8%  
         Center axle ..... 34.2%  
         Rear axles ..... 34.0%



### TIRES

Standard tire ..... 26.5 R25



### SERVICE REFILL CAPACITIES

Fuel tank ..... 493 ltr. **130.3 U.S. Gal**  
 Engine oil ..... .50 ltr. **13.2 U.S. Gal**  
 Torque converter, transmission and  
     retarder cooling ..... 115 ltr. **30.4 U.S. Gal**  
 Differentials (total) ..... 82.5 ltr. **21.8 U.S. Gal**  
 Final drives (total) ..... .38 ltr. **10.0 U.S. Gal**  
 Hydraulic system ..... 180 ltr. **47.6 U.S. Gal**  
 Suspension (total) ..... 21.2 ltr. **5.6 U.S. Gal**







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