

## MATERIAL HANDLING MACHINE



## SANY Material Handling Machine

The material handling machine has been widely used in steel plants, ports, stacking yards and warehouses to load or stack steel scrap and bulk cargoes as well as to pick up, hoist or cut materials. SANY Material Handling Machine has been applied multiple in-house developed technologies in the areas of energy saving and control, hydraulic linkage, anti-rollover protection, malfunction automatic detection and data real-time display to back up the world leading performance.


Equipped with Kawasaki large displacement main pump, high efficiency main valve and reducer, can realize fast operation

Excellent load capacity and optional boom length, adapt to a wider range of operating conditions.

## Stronger Power

## More Savings

high torque engine and motor, adopted mature chassis, reliable structure.

Controller has positive flow hydraulic system. Engine match with main pump perfectly and energy consumption reduced by $10 \%$.

## Working range



The diagram of dimension


## Working range

## SMHC35



## Brief Introduction

Sany 35 t Material Handling machine mainly apply to grab and loading or unloading operation for waste steel and bulk, with high efficiency, super high performance, safety and reliability.

## CONFIGURATION PARAMETER

| Power system | Engine |  | Mitsubishi D06FRC-TAA |
| :---: | :---: | :---: | :---: |
|  |  | Maximum power | 147kW/2100rpm |
|  |  | Maximum torque | 750Nm//1350rpm |
|  |  | Emission | CHN III |
|  |  | Oil tank | 465L |
| Moving system | Working rail span |  | 2590 mm |
|  | Tread width |  | 3830 mm |
|  | Track width |  | 600 mm |
|  | Maximum travel speed |  | $5 \mathrm{~km} / \mathrm{h}$ |
| Hydraulic system | Control type |  | Electronic control positive flow system |
|  | Main pump | Model | Kawasaki K7V125DTP1N9R-0E05-1V |
|  |  | Rated flow | 2X260L/min |
|  | Main valve |  | Kawasaki KMX15RB/B45217A-V |
|  | Reducer |  | Sauter GS14D20C. 0 |
|  | Movable boom cylinder |  | Hengli JSY26.5-DB |
|  | Stick cylinder |  | Zhongxing ZX200.3.1B |
|  | Maximum system pressure |  | 32 MPa |
|  | Hydraulic oil tank |  | 230L |
| Slewing mechanism | Slewing bearing |  | Sauter SSF1405/40CWH ॥ |
|  | Maximum slewing speed |  | 8rpm |
| Operation cabin | Lifting height |  | 2650 mm |
| Operation basic parameters | Boom specification |  | 12 m |
|  |  |  | Maximum working radius |
|  |  |  | Maximum working height |
|  | Maximum working radius |  | 10.5 m |
|  | Maximum working height |  | 10.5m |
|  | Maximum working depth |  | -6m |
|  | Theoretical load on maximum radius point(including grab) |  | 3.4 t |



The diagram of dimension


## Working range

## SMHC45



## Brief Introduction

Sany 45t Material Handling machine mainly apply to grab and loading or unloading operation for waste steel and bulk, with high efficiency, super high performance, safety and reliability.

CONFIGURATION PARAMETER

| Power system | Engine | 212kW/2000rpm |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1080Nm//1500rpm |  |  |  |
|  |  | CHN III |  |  |  |
|  |  | 540L |  |  |  |
| Moving system | Working rail span | 2590 mm |  |  |  |
|  | Tread width | 4140 mm |  |  |  |
|  | Track width | 600 mm |  |  |  |
|  | Maximum travel speed | $5 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Hydraulic system | Control type | Electronic control positive flow system |  |  |  |
|  | Main pump | Kawasaki K5V160DTH1SXR-9T46-BV |  |  |  |
|  | Main pump | 2X320L/min |  |  |  |
|  | Main valve | Kawasaki KMX15RB/B45606-EV1 |  |  |  |
|  | Reducer | Kawasaki $\begin{array}{c}\text { M5X180CHB-10A-6RA/265- } \\ \text { RG20D25 }\end{array}$ |  |  |  |
|  | Movable boom cylinder | Zhongxing ZXSMHW40.1.3 |  |  |  |
|  | Stick cylinder | Zhongxing ZXWMHW40.1.4 |  |  |  |
|  | Maximum system pressure | 32 MPa |  |  |  |
|  | Hydraulic oil tank | 340 L |  |  |  |
| Slewing mechanism | Slewing bearing | Sauter SSF1405.50CWHII |  |  |  |
|  | Maximum slewing speed | 8rpm |  |  |  |
| Operation cabin | Lifting height | 2650 mm |  |  |  |
| Operation basic parameters | Boom specification | 11 m |  | 14 m |  |
|  |  | Movable | m: 7m | Movable | om: 8.6 m |
|  |  | Stick: | 5 m | Stick: 6 m |  |
|  | Assembly hinge point of boom in the slewing platform | Upper hinge point | Nether <br> hinge <br> point | Upper <br> hinge <br> point | Nether hinge point |
|  | Maximum working radius | 10.5m | 10.5m | 13.5m | 13.5m |
|  | Maximum working height | 10.5 m | 12 m | 13.5m | 15 m |
|  | Maximum working depth | -3m | -1.5m | -6m | -3m |
|  | Theoretical load on maximum radius point(including grab) | 6 t | 6 t | 3.9 t | 4 t |



The diagram of dimension


|  | The length <br> of movable <br> hinge point | The length <br> of stick point | L | H 1 | H 2 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Boom combination 1 | 7 m | 4.5 m | 11 m | 3.31 m | 2.76 m |
| Boom combination 2 | 8.6 m | 6 m | 12.58 m | 3.31 m | 2.76 m |

## Working range

## SMHW48



CONFIGURATION PARAMETER

| Power system | Engine | Model | Isuzu GH-6HK1XKSC-01 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Power | $212 \mathrm{~kW} / 2000 \mathrm{rpm}$ |  |  |  |  |  |  |  |  |  |
|  |  | Torque | 1080Nm//1500rpm |  |  |  |  |  |  |  |  |  |
|  |  | Emission | CHN III |  |  |  |  |  |  |  |  |  |
|  |  | Oil tank | 540L |  |  |  |  |  |  |  |  |  |
| Power system | Tread width |  | 2445 mm |  |  |  |  |  |  |  |  |  |
|  | Wheelbase |  | 3200 mm |  |  |  |  |  |  |  |  |  |
|  | Vertical span |  | 5300 mm |  |  |  |  |  |  |  |  |  |
|  | Horizontal span |  | 4600 mm |  |  |  |  |  |  |  |  |  |
|  | Turning radius |  | 6000 mm |  |  |  |  |  |  |  |  |  |
|  | Maximum travel speed |  | 20km/h |  |  |  |  |  |  |  |  |  |
| Hydraulic system | Control type |  | Electronic control positive flow system |  |  |  |  |  |  |  |  |  |
|  | Main pump | Model | Kawasaki K5V160DTP1X7R-OE40-BV |  |  |  |  |  |  |  |  |  |
|  |  | Rated flow | $2 \times 320 \mathrm{~L} / \mathrm{min}$ |  |  |  |  |  |  |  |  |  |
|  | Main valve |  | Kawasaki KMX15RB/B45606-EV1 |  |  |  |  |  |  |  |  |  |
|  | Reducer |  | Kawasaki M5X180CHB-10A-6RA/265-RG20D25 |  |  |  |  |  |  |  |  |  |
|  | Movable boom cylinder |  | Zhongxing ZXSMHW40.1.3 |  |  |  |  |  |  |  |  |  |
|  | Stick cylinder |  | Zhongxing ZXWMHW40.1.4 |  |  |  |  |  |  |  |  |  |
|  | Maximum system pressure |  | 32 MPa |  |  |  |  |  |  |  |  |  |
|  | Hydraulic oil tank |  | 340L |  |  |  |  |  |  |  |  |  |
| Slewing mechanism | Slewing bearing |  | Kawasaki SSF1405.50CWHII |  |  |  |  |  |  |  |  |  |
|  | Maximum slewing speed |  | 8rpm |  |  |  |  |  |  |  |  |  |
| Operation cabin | Lifting height |  | 2650 mm |  |  |  |  |  |  |  |  |  |
| Operation basic parameters | Boom specification |  | 14 m |  | 16 m |  | 17m |  | 18 m |  | 20 m |  |
|  |  |  | Movabl | boom: <br> . m | Movab | boom: | Movable | boom: | Movabl <br> 10. | boom: <br> m | $\begin{array}{r} \text { Movable } \\ 10.5 \end{array}$ | boom: $\mathrm{m}$ |
|  |  |  | Stick | 6m | Stick | 7.5m | Stick: | 7.5m | Stick: | 7.5m | Stick: | 9.5m |
|  | Assembly hinge point of boom in the slewing platform |  | Upper hinge point | Nether hinge point | Upper hinge point | Nether hinge point | Upper hinge point | Nether hinge point | Upper hinge point | Nether hinge point | Upper hinge point | Nether hinge point |
|  | Maximum working radius |  | 13.5m | 13.5m | 15 m | 15 m | 16.5 m | 16.5 m | 16.5 m | 16.5 m | 19.5 m | 18 m |
|  | Maximum working height |  | 12 m | 13.5 m | 12 m | 16.5 m | 13.5 m | 16.5 m | 15 m | 16.5 m | 16.5 m | 18 m |
|  | Maximum working depth |  | -4.5m | -3 m | -6m | -4.5 m | -6m | $-4.5 \mathrm{~m}$ | -6m | $-4.5 \mathrm{~m}$ | -9m | -6m |
|  | Theoretical load on maximum radius point(including grab) |  | 6.4 t | 6.4 t | 5.3 t | 5.4t | 4.4t | 4.4t | 4.4t | 4.5t | 3.14 | 3.8 t |

## Brief Introduction

Sany 48t Material Handling machine widely apply to loading and unloading bulk material at railway or river terminals, with various boom combination option to meet different working conditions, wider working range, high efficiency.

## Working range

## SMHC50-D



## Brief Introduction

Sany 50D Materials Handler is pure electric machine. Equipped with different grabs to apply to the loading and unloading of bulk materials and waste steel. Driving by motor, zero exhaust, more environmental and saving $50 \%$ cost comparing internal combustion engine machine.

## CONFIGURATION PARAMETER

| Power system | Motor |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 160kW/1480rpm |  |  |  |
|  |  | $380 \mathrm{~V}, 50 \mathrm{~Hz}$ |  |  |  |
|  |  | Soft Start |  |  |  |
| Moving system | Working rail span | 2590 mm |  |  |  |
|  | Tread width | 4140 mm |  |  |  |
|  | Track width | 600 mm |  |  |  |
|  | Maximum travel speed | $5 \mathrm{~km} / \mathrm{h}$ |  |  |  |
| Hydraulic system | Control type | Electronic control positive flow system |  |  |  |
|  | Main pump | Kaw | k5V20 | TH1 X5R-O | 0-BV |
|  |  | 2X390L/min |  |  |  |
|  | Main valve | Kawasaki KMX15RB/B45606-EV1 |  |  |  |
|  | Reducer | Kawasaki M5X180CHB-10A-6RA/265-RG20D25 |  |  |  |
|  | Movable boom cylinder | Zhongxing ZXSMHW40.1.3 |  |  |  |
|  | Stick cylinder | Zhongxing ZXWMHW40.1.4 |  |  |  |
|  | Maximum system pressure | 32 MPa |  |  |  |
|  | Hydraulic oil tank | 340 L |  |  |  |
| Slewing mechanism | Slewing bearing | Sauter SSF1405.50CWHII |  |  |  |
|  | Maximum slewing speed | 8rpm |  |  |  |
| Operation cabin | Lifting height | 2650 mm |  |  |  |
| Operation basic parameters | Boom specification | Movable boom: 7m |  |  |  |
|  |  |  |  | Movable boom:8.6m |  |
|  |  | Stick: 4.5 m |  | Stick: 6m |  |
|  | Assembly hinge point of boom in the slewing platform | Upper hinge point | Nether hinge point | Upper hinge point | Nether hinge point |
|  | Maximum working radius | 10.5m | 10.5m | 13.5m | 13.5 m |
|  | Maximum working height | 10.5m | 12 m | 13.5m | 15 m |
|  | Maximum working depth | -3m | -1.5m | -6m | -3m |
|  | Theoretical load on maximum radius point(including grab) | 6 t | 6 t | 3.9 t | 4 t |



## The diagram of dimension



|  | The length <br> of movable <br> hinge point | The length <br> of stick point | L | H 1 | H 2 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Boom combination 1 | 7 m | 4.5 m | 12.8 m | 3.31 m | 2.76 m |
| Boom combination 2 | 8.6 m | 6 m | 14.38 m | 3.31 m | 2.76 m |

## Working range

## SMHC70



## Brief Introduction

Sany 70t Material Handling machine equips with dual powers, mainly apply to bulk materials loading and unloading in river terminals. It has big double shell grab and various boom combination, working wider range, high efficiency, unloading completely,

CONFIGURATION PARAMETER

| Power system | Engine | Maximum power | 264kW/2100rpm |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum torque | $1500 \mathrm{Nm} / 1500 \mathrm{rpm}$ |  |
|  |  | Emission | CHN III |  |
|  |  | Oil tank | 600 L |  |
|  | Motor | Model | Chang Diantou Y250-380-407 |  |
|  |  | Rated power | 250kW/1490rpm |  |
|  |  | Voltage | $380 \mathrm{~V}, 50 \mathrm{~Hz}$ |  |
|  |  | Start type | Soft starting |  |
| Moving system | Working rail span |  | 4000 mm |  |
|  | Tread width |  | 4691 mm |  |
|  | Track width |  | 762 mm |  |
|  | Maximum travel speed |  | $3 \mathrm{~km} / \mathrm{h}$ |  |
| Hydraulic system | Control type |  | Electronic control positive flow system |  |
|  | Main pump | Model | Engine connect pump: Kawasaki K5V200DTH1X5R-OE30-BV <br> Motor connect pump: Kawasaki K3V280DTH1 GZR-0E82-BVB |  |
|  |  | Rated flow | Working with engine : 2 X390L/min Working with motor: $2 \times 417 \mathrm{~L} / \mathrm{min}$ |  |
|  | Main valve |  | Park M02560PH-A |  |
|  | Reducer |  | Kawasaki M5X250CHB-10A-15A/275-RG27D25E |  |
|  | Movable boom cylinder |  | Zhongxing ZXSMHC70.8.3.1 |  |
|  | Stick cylinder |  | Zhongxing ZXSMHW40.1.3 |  |
|  | Maximum system pressure |  | 34.3 MPa |  |
|  | Hydraulic oil tank |  | 500 L |  |
| Slewingmechanism | Slewing bearing |  | Sauter SSf1530/60CWHV |  |
|  | Maximum slewing speed |  | 8rpm |  |
| Operation cabin | Lifting height |  | 2650 mm |  |
| Operation basic parameters | Boom specification |  | 18 m | 20 m |
|  |  |  | Movable boom: 10.5 m | Movable boom: 12.5 m |
|  |  |  | Stick: 7.5 m | Stick: 7.5m |
|  | Maximum working radius |  | 16.5 m | 19.5m |
|  | Maximum working height |  | 15 m | 19 m |
|  | Maximum working depth |  | -7.5m | -7.5m |
|  | Theoretical load on maximum radius point(including grab) |  | 8.0 t | 6.1 t |




## The diagram of dimension



|  | The length <br> of movable <br> hinge point | The length <br> of stick point | L | H 1 | H 2 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Boom combination 1 | 10.5 m | 7.5 m | 15300 mm | 3140 mm | 6800 mm |
| Boom combination 2 | 12.5 m | 7.5 m | 17560 mm | 3140 mm | 6230 mm |

## TECHNICAL PARAMETER

| Technical parameter |  | SMHW30 | SMHC35 | SMHC45 | SMHW48 | SMHC50-D | SMHC70 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Engine | Model | Mitsubishi | Mitsubishi | Isuzu GH-6HK1XKSC-01 | Isuzu GH-6HK1XKSC-02 | Chang Diantou | Dongfeng Cummins |
|  | Power | 147kW/2100rpm | $147 \mathrm{~kW} / 2100 \mathrm{rpm}$ | $212 \mathrm{~kW} / 2000 \mathrm{rpm}$ | $212 \mathrm{~kW} / 2000 \mathrm{rpm}$ | 160kW/1480rpm | $264 \mathrm{~kW} / 2100 \mathrm{rpm}$ |
|  | Torque | $750 \mathrm{Nm} / / 1350 \mathrm{rpm}$ | $750 \mathrm{Nm} / / 1350 \mathrm{rpm}$ | 1080Nm//1500rpm | 1080Nm//1500rpm |  | $1500 \mathrm{Nm} / 1500 \mathrm{rpm}$ |
|  | EMission | CHN III | CHN III | CHN III | CHN III | CHN III | CHN III |
|  | Oil tank | 465 L | 465L | 540L | 540L |  | 600L |
| Chassis | Tread width | 2387 mm | 3830 mm | 4140 mm | 2445 mm | 4140 mm | 4691 mm |
|  | Wheelbase | 2800 mm |  |  | 3200 mm |  |  |
|  | Vertical span | 4720 mm |  |  | 5300 mm |  |  |
|  | Horzontal span | 3953 mm |  |  | 4600 mm |  |  |
|  | Turning radius | 8600 mm |  |  | 6000 mm |  |  |
|  | Maximum travel speed | 20km/h | $5 \mathrm{~km} / \mathrm{h}$ | $5 \mathrm{~km} / \mathrm{h}$ | $20 \mathrm{~km} / \mathrm{h}$ | $5 \mathrm{~km} / \mathrm{h}$ | 3km/h |
| Hydraulic system | Control type | Electronic control positive How system | Electronic control positive How system | Electronic control positive How system | Electronic control positive How system | Electronic control positive How system | Electronic control positive How system |
|  | Main pump model | Rexroth | Kawasaki | Kawasaki | Kawasaki | Kawasaki | Kawasaki |
|  | Main pump Rated flow | $2 \times 260 \mathrm{~L} / \mathrm{min}$ | $2 \times 260 \mathrm{~L} / \mathrm{min}$ | $2 \times 320 \mathrm{~L} / \mathrm{min}$ | $2 \times 320 \mathrm{~L} / \mathrm{min}$ | $2 \times 390 \mathrm{~L} / \mathrm{min}$ | When use Engine 2•390L/min When use electromotor $2 \cdot 417 \mathrm{~L} / \mathrm{min}$ |
|  | Main valve | Kawasaki | Kawasaki | Kawasaki | Kawasaki | Kawasaki | Park M02560PH-A |
|  | Reducer | Sauter | Sauter | Kawasaki | Kawasaki | Kawasaki | Kawasaki |
|  | Movable boom cyhnder | Hengli | Hengli | Zhongxing | Zhongxing | Zhongxing | Zhongxing |
|  | Stick cylinder | Zhongxing | Zhongxing | Zhongxing | Zhongxing | Zhongxing | Zhongxing |
|  | Maximum system pressure | 32 MPa | 32 MPa | 32 MPa | 32 MPa | 32 MPa | 34.3 MPa |
|  | Hydraulic oil tank | 230 L | 230 L | 340 L | 340 L | 340 L | 500 L |
| Slewing mechanism | Slewing bearing | Sauter | Sauter |  | Sauter | Sauter | Sauter |
|  | Maximum slewing speed | 8rpm | 8rpm | 8rpm | 8rpm | 8rpm | 8rpm |
| Operation cabin | Lifting height | 2650 mm | 2650 mm | 2650 mm | 2650 mm | 2650 mm | 2650 mm |

OPTIONAL ATTACHMENTS


Plum blossom grab


Double shell grab


Wood log grab

Grab configuration

| Material type |  | Density <br> $\mathbf{( t / m}^{3} \mathbf{)}$ | Grab type | Grab <br> model | Capacity <br> $\mathbf{( m}^{\mathbf{3}} \mathbf{)}$ | Weight(t) |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Waste material | Steel, rubber | 1 | Plum blossom <br> grab | SLM1000 | 1 | 2.12 |
| Super light density <br> material | Fertilizer, <br> fodder | 0.6 | Double shell <br> grab | SLS5006 | 5 | 2.97 |
| Light density <br> material | Coal | 0.8 | Double shell <br> grab | SLS3508 | 3.5 | 2.77 |
| Middle density <br> material | Sand, grit | 1.6 | Double shell <br> grab | SLS2525 | 2.5 | 2.42 |
| Strong density <br> material | Iron ore | 2.4 | Double shell <br> grab | SLS1525 | 1.5 | 2.34 |
| Wood log | $3 m$ long | 0.8 | Wood log <br> grab | SWY2000 | $2 m 2$ | 2.06 |

The data above maybe be changed due to constant update of technology. The specific parameters shall be subject to the contract.

## Shots from the Steel Factories



Shots from the Railway


Shots from the Ports


Shots from the Jobsites


## Shots from the Jobsites



## SERVICE

Carefree Service


Support Service: +86-4008-87-8318

Exceed customer expectation and industry standards.
Service mission:
All for client, create value for customer
Service commitment:
(1) Reply customer within 15 minutes.
(2)Reach main service area within 2 hours.
(3)Solve general problems and provide regular parts within one day.
(4)Solve customer complaints with two days. (5)Solve all issues within 7 days.
Service value:


Innovation, Excellence, Clients, Cooperation
Respect, Passion, Honesty, Responsibility
Service advantage:
"Professional service power" : Sany has offices in over 200 countries and regions, with 11 subsidiaries and 35 service points in domestic together. Setting up the parts warehouse can cover the world range, Forming the four in one of parts supply and guarantee system by headquarters warehouse, regional center warehouse, provincial and prefecture-level city, Accommodating 80000 kinds of parts to ensure fully customer service requirements in time
"Professional operation and maintenance system" : Sany has invested tens of million of RMB to build "Sany Customer cloud APP", which enable customers to monitor the running status and parameters of the equipment in real time anywhere in the world. In addition, it provides online consultation, community communication, accessories mall, one-click repair, maintenance reservation, product knowledge learning and other value-added service. So the customer can easily enjoy the highest quality of service in any place of the world.

