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LAMPIRAN

Lampiran 1

Contoh Data Survei

No	X	Y	Z	Kode
1	515868.14	9917462.39	20.443	CR
2	515882.69	9917467.97	21.309	CR
3	515673.808	9917409.638	-23.41	FE14BU
4	515670.469	9917400.606	-23.491	FE14BU
5	515667.222	9917393.318	-23.417	FE14BU
6	515664.369	9917385.647	-23.4	FE14BU
7	515571.949	9917846.103	34.611	RE10A1
8	515569.688	9917839.709	33.795	RE10A1
9	515567.98	9917835.631	33.139	RE10A1
10	515575.066	9917839.821	34.164	SH
11	515414.476	9917218.736	1.996	SH
12	515416.801	9917226.234	2.057	SH
13	515418.237	9917231.985	2.196	SH
14	515421.485	9917238.642	2.276	SH
15	515555.425	9917958.914	40.209	CR

Lampiran 2

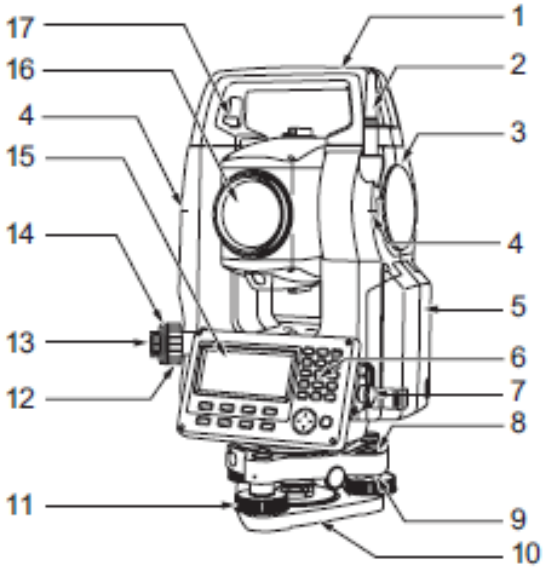
Data *Truck Count* Bulan Januari – Maret 2023

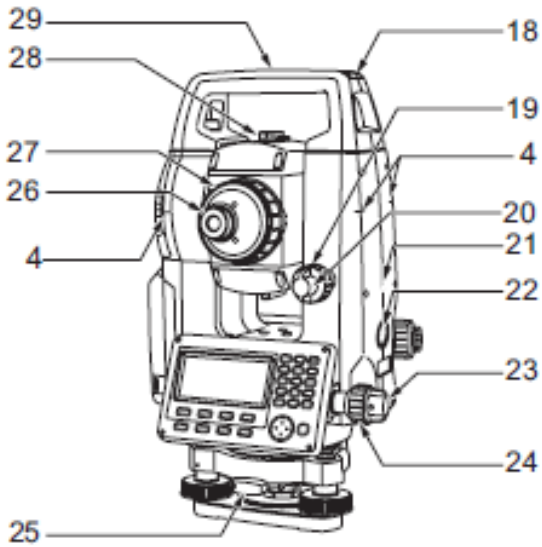
No	Production Data	Material	Production	Ritation	Total	Actual Ton
1	1-7/1/2023	Overburden	2.732.124	36.004	444.649,4	342.038
2	8-14 Jan 2023	Overburden	2.798.111	37.032	457.345,2	351.804
3	15-21 Jan 2023	Overburden	2.134.270	30.116	371.932,6	286.102
4	22-28 Jan 2023	Overburden	1.844.111.5	25.928	320.210,8	246.316
5	29-31 Jan 2023	Overburden	535.990	7.846	96.898,1	74.537
6	1-4 Feb 2023	Overburden	931.836	12.530	154.745,5	119.035
7	5-11 Feb 2023	Overburden	2.429.169	31.425	388.098,75	298.537,5
8	12-18 Feb 2023	Overburden	2.135.372	28.243	348.801,05	268.308,5
9	19-25 Feb 2023	Overburden	1.715.586	22.991	283.938,85	218.414,5
10	26-28 Feb 2023	Overburden	1.194.482.5	15.536	191.869,6	147.592
11	1-4 Mar 2023	Overburden	717.155	8.954	110.581,9	85.063
12	5-11 Mar 2023	Overburden	1.845.118,5	22.465	277.442,75	213.417,5
13	12-18 Mar 2023	Overburden	2.013.981	22.999	284.037,65	218.490,5
14	19-25 Mar 2023	Overburden	2.993.830	28.172	347.924,2	267.634
15	26-31 Mar 2023	Overburden	2.497.930	24.930	307.885,5	236.835

Lampiran 3

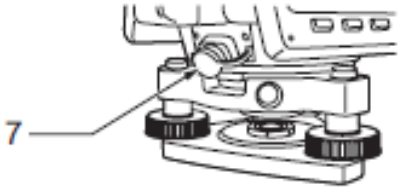
Spesifikasi Alat Ukur *Total Station*

● **CX Series**





CX-101/102 and Low Temperature Models only



1 Handle
2 *Bluetooth* antenna
3 External interface hatch (USB port)
4 Instrument height mark
5 Battery cover
6 Operation panel
7 Serial connector / Combined communications and power source connector (CX-101/102, Low Temperature Model: CX-103/105)
8 Circular level
9 Circular level adjusting screws
10 Base plate
11 Levelling foot screw
12 Optical plummet focussing ring
13 Optical plummet eyepiece
14 Optical plummet reticle cover (12-14: Not included on instruments with laser plummet (⇄))
15 Display unit
16 Objective lens (Includes Laser-pointer function)
17 Handle locking screw
18 Tubular compass slot
19 Vertical fine motion screw
20 Vertical clamp
21 Speaker
22 Trigger key
23 Horizontal clamp
24 Horizontal fine motion screw
25 Tribrach clamp
26 Telescope eyepiece screw
27 Telescope focussing ring
28 Sighting collimator
29 Instrument center mark

TELESKOP	
Pembesaran/Penyelesaian Daya	30x / 2.5"
Panjang	171mm (6.7in)
Lobang Lensa Objectif	45mm (1.8in) (48mm (1.9in) for EDM)
Gambar	Tegak
Bidang Pandang	1˚30˚ (26m/1.000m)
Minimum Fokus	1.3m (4.3ft)
Penerangan Retikel	Kecerahan 5 tingkat
PENGUKURAN SUDUT	
Resolusi Display	1"/5"
Akurasi (ISO 17123-3:2001)	3"
IACS (Independent Angle Calibration System)	Tidak tersedia
Dual-axis kompensator / pemakaian collimation	Dual-axis sensor, rentang pengukuran : ± 6' (±111 mgon) pemakaian collimation tersedia
PENGUKURAN JARAK	
Laser output	Mode Reflectorless : Class 3R / Prism / sheet mode : Class 1
Rentang pengukuran Reflectorless (dibawah kondisi rata – rata)	0.3 - 500m (1.0 - 1,640ft.)
Rentang pengukuran Reflective sheet (dibawah kondisi rata - rata)	RS90N-K : 1.3 - 500m (4.3 - 1,640ft.) RS50N-K: 1.3 - 300m (4.3 - 980ft.), RS10N-K : 1.3 - 100m (4.3 - 320ft.)
Pengukuran mini prism (dibawah kondisi rata - rata)	CP01 : 1.3 - 2,500m (8,200ft.), OR1PA : 1.3 - 500m (1,640ft.)
Rentang pengukuran satu AP prism (dibawah kondisi rata - rata)	1.3-4,000m (4.3-13,120ft)/dalam kondisi yang baik : 5,000 (16,400ft)
Rentang pengukuran tiga AP prism (dibawah kondisi rata - rata)	hingga 5,000m (16,400ft)/dalam kondisi yang baik : hingga 6,000m(19,680ft)
Resolusi display	Baik/Cepat :0.001m/0.01ft/1/8in

	Pelacakan : 0.01m/0.1ft/1/2in
Akurasi (ISO 17123-4:2001) **(D=Pengukuran jarak pada mm)**	(3 + 2ppm x D) mm*7 - Reflectorless (3 + 2ppm x D) mm - Reflective sheet (2 + 2ppm x D) mm - AP/CP prism
Waktu Pengukuran	Baik : 0.9s (initial 1.7s) Cepat : 0.7s (initial 1.4s) Pelacakan : 0.3s (initial 1.4s)
INTERFACE DAN MANAJEMEN DATA	
Display/keyboard	Graphic LCD, 192 x 80 dots, backlight, penyesuaian kontras /Alphanumeric keyboard / 25 keys dengan backlight
Kontrol lokasi panel	Pada kedua wajah (face)
Trigger key	Pada dukungan instrumen yang tepat
Data Penyimpanan memori internal	10.000 poin data
Data Penyimpanan memori eksternal	USB flash memory (max. 8GB)
Interface	Serial RS-232C, USB2.0 (Type A, untuk USB flash memory)
Modem Bluetooth (tambahan)*10	Bluetooth Class 1, Ver.2.1+EDR, rentang penggunaan : hingga 300m(980ft.)*11
SPESIFIKASI UMUM	
Laser pointer*12	Coaxial laser merah menggunakan EDM beam
Panduan cahaya * 12	LED hijau (524nm) dan LED merah (626nm), rentang penggunaan : 1.3 - 150m (4.3 - 490ft.)*2
Graphic / Circular level	6’ (Inner Circle) 10' / 2mm
Optik	Pembesaran : 3x, fokus minimum : 0.3m (11.8in.) dari bawah tribrach
Laser (tambahan)	Laser merah diode (635nm±10nm),

	Akurasi beam : <=1.0mm@1.3m, Class 2 laser
Perlindungan debu dan air	IP66 (IEC 60529:2001)
Suhu penggunaan	-20 - +60ºC (-4 - +140ºF)
Ukuran dengan handle (W x D x H)	Control panel pada kedua wajah (face) : 191 x 181 x 348mm (7.5 x 7.1 x13.7in.) Control panel pada satu wajah (face) : 191 x 174 x 348mm (7.5 x6.9 x 13.7in.)
Berat dengan bayerai dan tribrach	5.6kg (12.3 lb.)
Baterai BDC70	Baterai isi ulang Li-Ion
Waktu pengukuran (20ºC) pada BDC70	36 jam (pengukuran jarak satu setiap 30 detik)
Waktu pengukuran (20ºC) pada baterai eksternal (tambahan)	BDC60 : 44 jam, BDC61 : 89 jam (pengukuran jarak satu setiap 30 detik)

Lampiran 4

Spesifikasi Alat Gali Muat

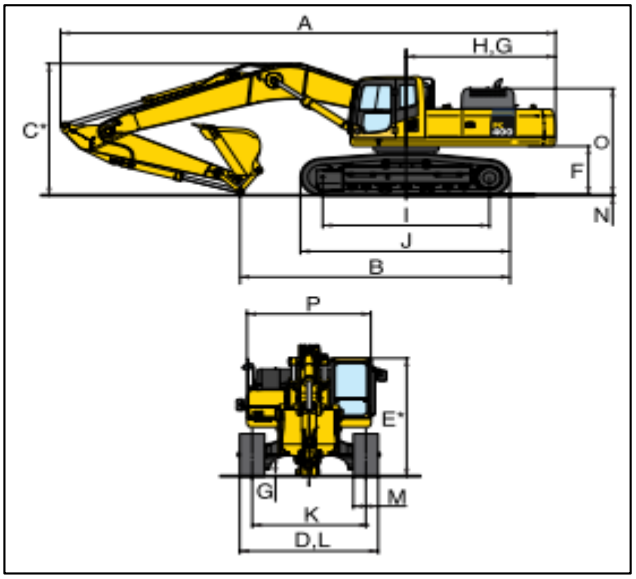
Spesifikasi, Fungsi dan Tugas Alat

Gambar Excavator PC 400-8

Arti kode unit :

P C 400 -8

- P → HYDRAULIC EXCAVATOR
- C → CRAWLER/RANT
- 400 → OPERASI (400 x 0,1 = 40 ton)
- -8 → MODIFIKASI BERAT SIAP



Spesifikasi Unit

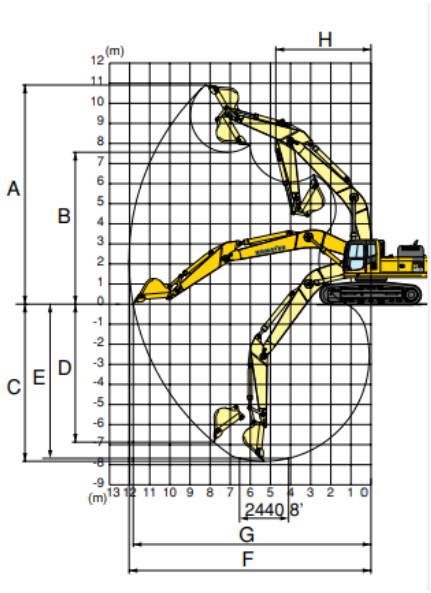
Dimensi Unit Excavator PC 200 -8

ITEM		SATUAN	PC 200-8
Berat unit (tidak termasuk operator)		kg	20700-21700
Kapasitas bucket		m^3	0,50-1.20
Tipe engine		-	KOMATSU SAA6D102E-2-A dieselengine
Engine horsepower		HP/rpm	147/2000
A	Panjang unit	mm	11905
B	Panjang bagian bawah	mm	8230
C	Tinggi unit	mm	3850
D	Lebar track keseluruhan	mm	3430
E	Tinggi unit sampai kabin	mm	3285
F	Jarak ground dengan counterweight	mm	1320
G	Panjang track	mm	5505
Travel speed(Low/High)		km/h	3,0 / 4,15 / 5,5
Swing speed		Rpm	9.1

**sumber data : OMM PC 400-8*

Jangkauan Kerja			
	Kategori	**Satuan**	**PC 400-8**
A	Max. diggingreach	mm	11080
B	Max. diggingdepth	mm	6845
C	Max. digging height	mm	10.310
D	Max.verticalwalldepth	mm	5305
E	Max. dumping height	mm	7070
G	Max. reach at ground level	mm	9.700

Operasional Training Development PT Berkat Anugerah Sejahtera



Kapasitas Cairan		
Nama	**Satuan**	**Isi**
Fuel Tank	Liter	650
Cooling System	Liter	36
Hydraulic System	Liter	248
Engine Oil Pan	Liter	37

FUEL CONSUMPTION (Liter/Jam)		
Low	**Medium**	**High**
6,2 – 8,9	8,9 – 13,4	13,4 –22,3

**sumber data : Komatsu Handbook edisi 31*

Keterangan :

- Low : Efisiensi pekerjaan < 65 %.
- Medium Loading : Efisiensi pekerjaan antara 65 – 80 %. Contoh : Digging,
- High : Efisiensi pekerjaan > 80 %.

Lampiran 5

Spesifikasi Alat Angkut

SPESIFIKASI

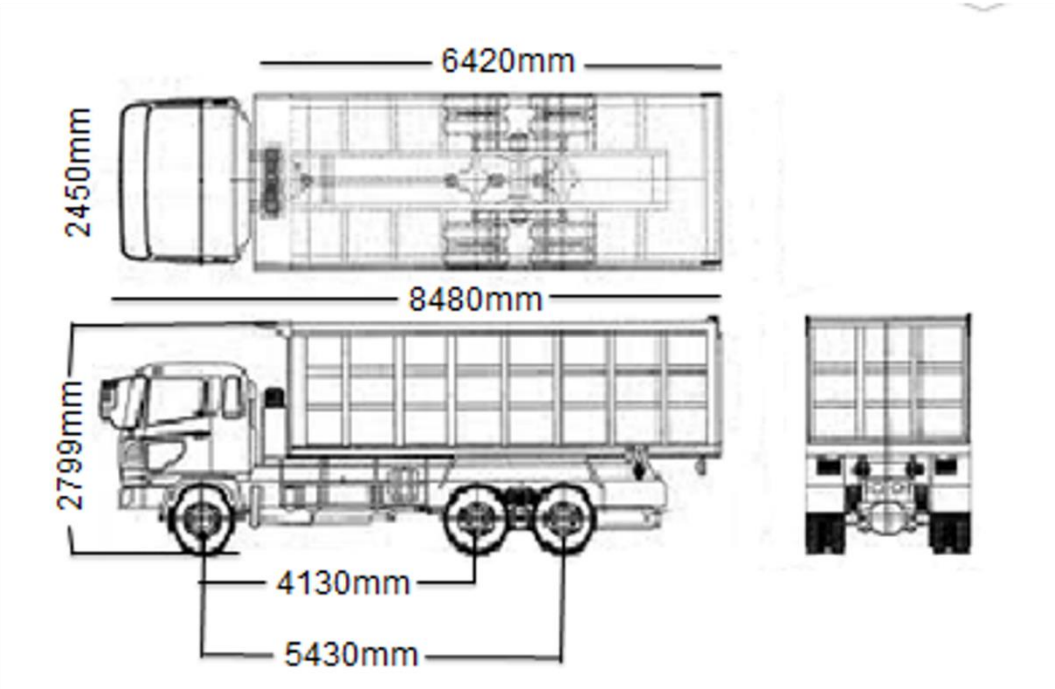
GENERAL KOMPONEN

KODE HINO FM 280 JD

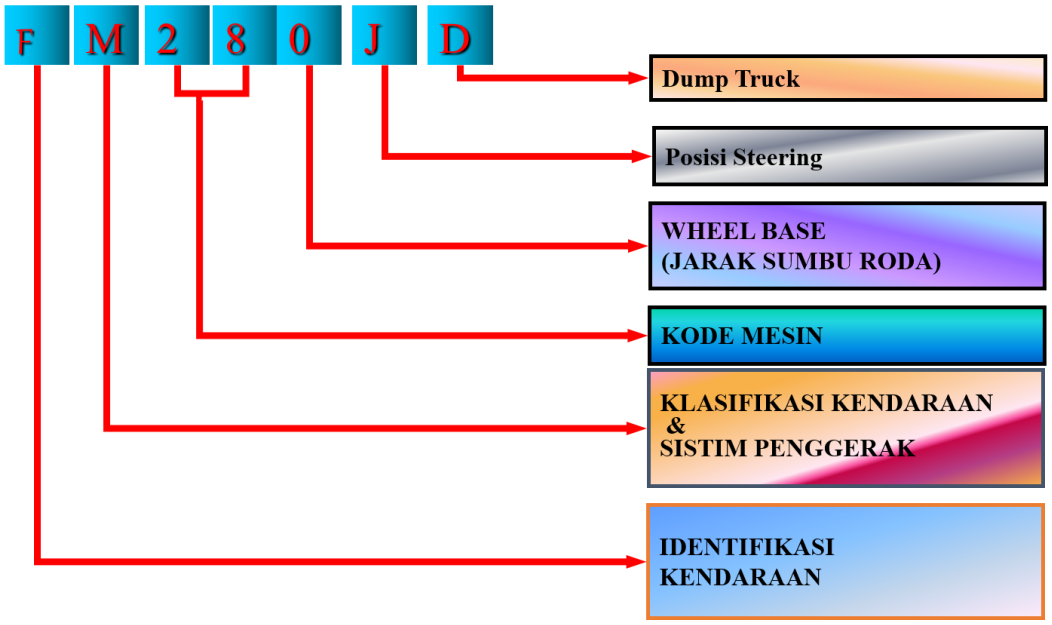
F	: Forward
M	: Medium
280	: Hours Power
J	: Jumbo
D	: Diesel

Keterangan :
1. Cabin
2. Body Dump
3. Brake air tank
4. Front tyre
5. Rear tyre
6. Radiator guard
7. Spion

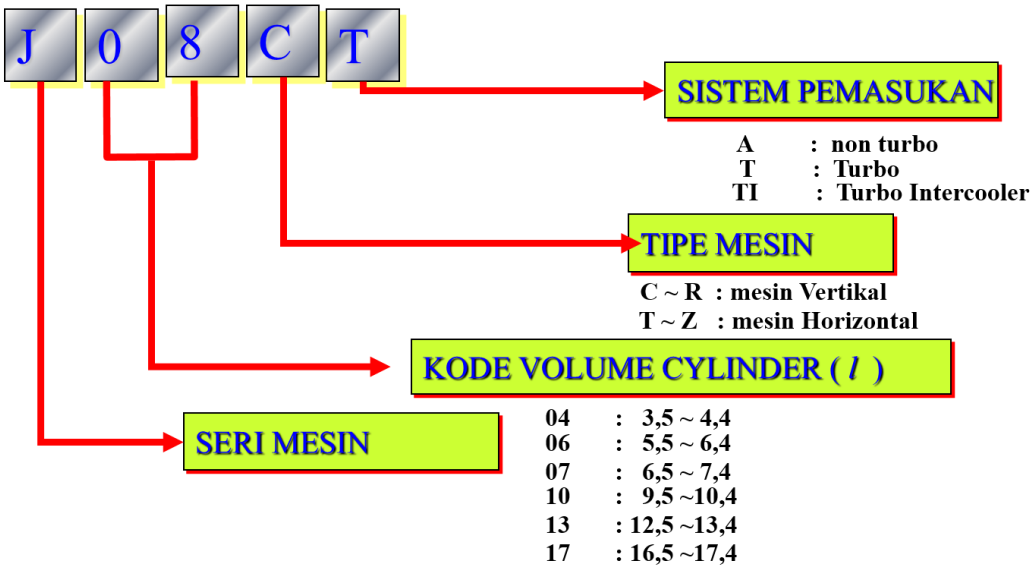
Dimensi



Kode Unit



KODE MODEL MESIN HINO



MODEL HINO FM 280 JD	Value	
Model Engine	J08CTG	
Type Engine	Hino Engine	
Out Put Power	215 HP	2700 RPM
Torsi Maksimum	63 HP	1600 RPM
Volume cylinder	9100 CC	
Compression Pressure	35 - 38 Kg/cm2	
Compression Ratio	18,0 : 1	
Air cleaner	Dry type air cleaner with automatic dust ejector, primary and safety elements	
Gross vehicle weight	26 ton	
Timing Injection	150 sebelum TMA	
Tekanan Nozzle	220 Kg/Cm2	
Tekanan Udara	7,0 - 8,5 Kg/Cm2	
Sistem brake	Air over break (AOB)	
Kapasitas alternator	24V - 45 Amp	
Battery	2x70 Ah/12 Volt	

CAPACITY	
Fuel tank	200 ltr
Cooling system	21 ltr
Oil Hidraulick steering	3,5 Ltr
Oil Gardan	11 Ltr
Oil Differential	95 Ltr
Oil Engine	23 Ltr
Oil PTO	9 Ltr
Oil power steering Jenis oil (ATF 220 atau Detron II atau Detron III)	3,4 Ltr