WSM

WORKSHOP MANUAL
DUMPER

MANUEL D'ATELIER
DUMPER

KC120HC

Kubota

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1. SPECIFICATIONS

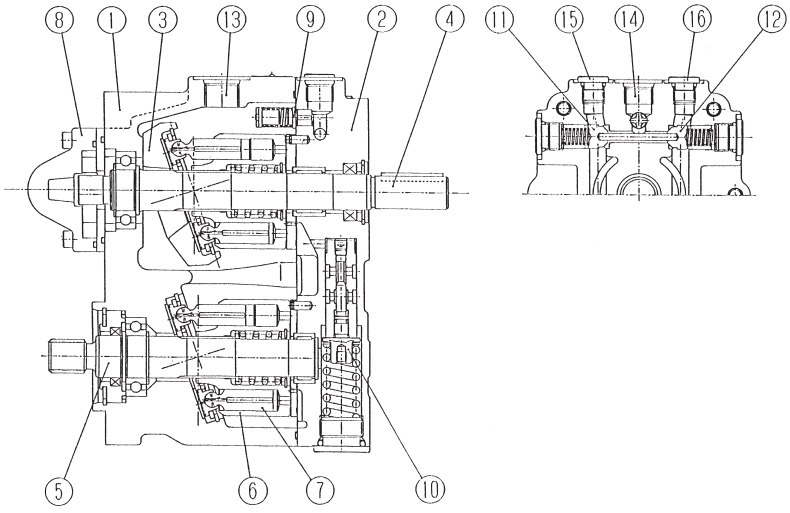
Model				KC120HC
Machine weight			(kg)	885
Max. loading capacity			(kg)	1200
Engine	Model			KUBOTA Z482-E3B-CRYM-1
	Type			Vertical 4-cycle Liquid-Cooled Diesel
	No. of cylinder			2
	Bore and Stroke		(mm)	67 x 68
	Total Displacement		(cc)	479
	Output		(KW/rpm)	9.6/3600
	Maximum Bare Speed		(rpm)	3800
	Minimum Bare Idling Speed		(rpm)	1250±50
	Starting system			Electric
Dimensions	Length		(mm)	2640
	Width		(mm)	950
	Height		(mm)	2015
	Min. ground clearance		(mm)	145
	Track center-to-center distance		(mm)	720
	Bed	Length	(mm)	1470
		Width	(mm)	855
		Height	(mm)	320
		Capacity Struck / Heaped	(ℓ)	400 / 520
Undercarriage	Crawler type			Rubber track
	Number of drive sprocket teeth			7
	Crawler pitch		(mm)	72
	Track width		(mm)	230
	Number of track rollers			6 (one side)
	Ground contact length		(mm)	1180
	Gradeability		(°)	25
	Alignment system			Screw type with spring
	Ground contact pressure w/o load		(kgf/cm^2)	0.17
	Ground contact pressure w/t load		(kgf/cm^2)	0.4
	Max. traction power		(kgf)	1040
Transmission	Type			HST + Gear shift type transmission
	Travelling speed (Forward / Reverse)	1st	(km/h)	0 - 3.8 / 0 - 2.1
		2nd	(km/h)	0 - 6.9 / 0 - 3.9
	Main clutch			Belt tension
	Steering clutch			Tooth clutch
	Steering brake			Wet multi-plate type
	Parking brake			Wet multi-plate type
Dumping performance	Dumping type			Hydraulic
	Dumping direction			Front / Right side / Left side
	Max. Dumping angle		(°)	56 / 60 / 60
	Raising time (at 3800rpm)		(sec)	7.0
	Lowering time (at 3800rpm)		(sec)	3.6
Capacity	Fuel tank		(ℓ)	14.8
	Hydraulic oil tank		(ℓ)	1.5
	Engine oil		(ℓ)	2.55
	Coolant		(ℓ)	Approx. 2.8
	HST oil		(ℓ)	13.0
	Transmission oil (main / sub)		(ℓ)	3.1 / 0.45

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5. HYDRAULIC SYSTEM (HST)

HST unit



① Housing
② Cover
③ Hanger
④ Input shaft
⑤ Output shaft
⑥ Block, cylinder
⑦ Piston
⑧ Case, charge pump
⑨ Relief valve (Low pressure)
⑩ Relief valve (High pressure)
⑪ Neutral valve (Backward)
⑫ Neutral valve (Forward)
⑬ Drain port
⑭ Suction port
⑮ Pressure check port (Forward)
⑯ Pressure check port (Backward)

5. SYSTEME HYDRAULIQUE (HST)

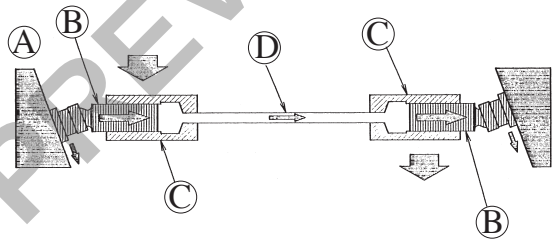
UNITE HYDRAULIQUE HST

Hydraulic pump : 0 ~ 18.2 cm^3
Hydraulic motor : 18.2 cm^3
Charge pump : 5.1cm^3
Relief valve set pressure : 18.5MPa$^{+2.9MPa}$
Charge pressure : 5.0 kgf/cm^2

Pressure check port (PF3/8)
Suction port (PF1/2) [charge pump]
Discharge port (PF3/8) [charge pump]

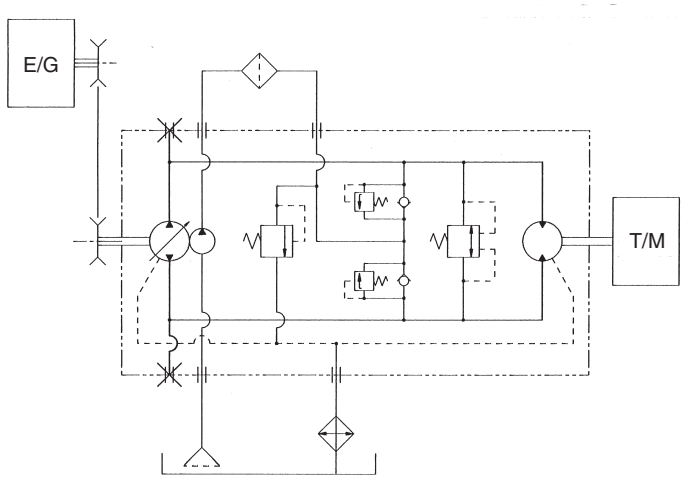
Pompe Hydraulique : 0 ~ 18.2 cm^3
Moteur Hydraulique : 18.2 cm^3
Pompe de Gavage : 5.1cm^3
Réglages Limiteurs de Pression : 18.5MPa$^{+2.9MPa}$
Pression de Gavage : 5.0 kgf/cm^2

Prise de pression (Fem 3/8")
Aspiration (Fem 1/2") pompe de gavage
Refoulement (Fem 3/8") pompe de gavage



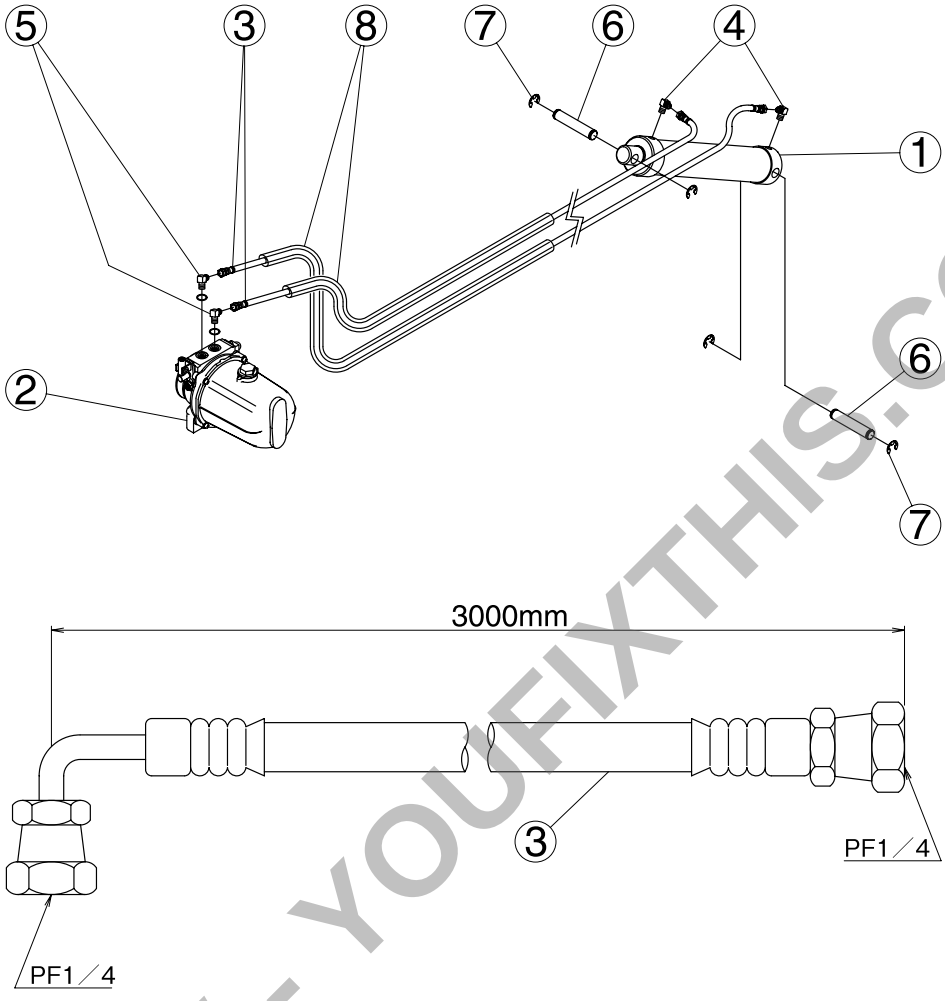
Ⓐ Pump (Adjustable)
Ⓑ Piston
Ⓒ Cylinder
Ⓓ Flow of oil

Ⓐ Pompe
Ⓑ Piston
Ⓒ Vérin
Ⓓ Débit



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① : Hydraulic cylinder (Part no 89950-1154-0 / 1)
Pressure: 170kgf/cm² (16.7MPa)
Stroke : 300mm

② : Hydraulic pump (Part no 89956-1559-0 / 1)

③ : Hydraulic hose (Part no 89957-1233-0 / 2)
Length : 3000mm

④ : Elbow (Part no 89910-1188-0 / 2)

⑤ : Hose adapter with O-ring (Part no 89910-1189-0 / 2)

⑥ : Cylinder pin (Part no 89954-1159-0 / 2)

⑦ : Cir-clip (E) (Part no 04613-00150 / 4)

⑧ : Vinyl tube (Part no 89957-1234-0 / 2)

① : Cylindre hydraulique (N° de l'lélément 89950-1154-0 / 1)
Pression: 170kgf/cm² (16.7MPa)
Course : 300mm

② : Hydraulique pompe (N° de l'lélément 89956-1559-0 / 1)

③ : Tuyau hydraulique (N° de l'lélément 89957-1233-0 / 2)
Longueur: 3000mm

④ : Coude (N° de l'léement 89910-1188-0 / 2)

⑤ : Adaptateur de tuyau (N° de l'lélément 89910-1189-0 / 2)

⑥ : Goupille de cylindre (N° de l'lélément 89954-1159-0 / 2)

⑦ : Circlip (E) (N° de l'lélément 04613-00150 / 4)

⑧ : Tube de vinyle (N° de l'lélément 89957-1234-0 / 2)

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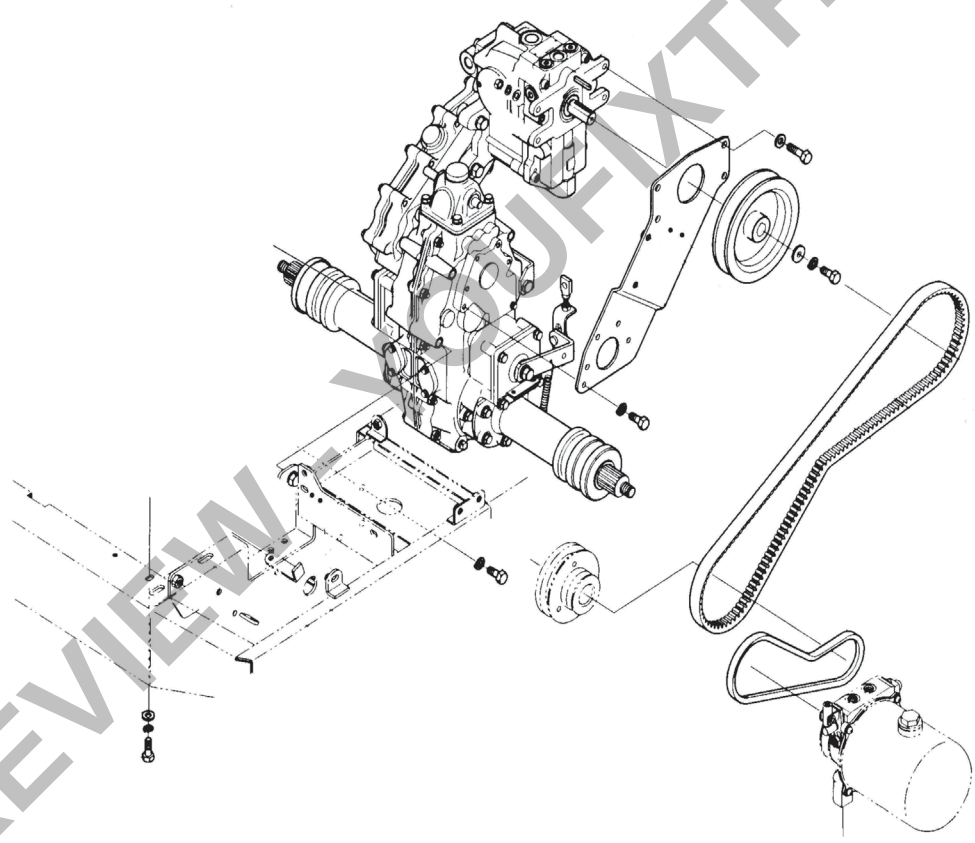
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8. V-BELT
Size of V-belt

1) V-belt (Engine pulley ~ HST pulley)
   Size : SC64 (Cog belt) x 1 / Part no 89920-1170-0
2) V-belt (Engine pulley ~ Hydraulic pump pulley)
   Size : SB29 x 1 / Part no 89920-1175-0
3) Engine pulley
   Part no 89920-1157-0
4) HST pulley
   Part no 89920-1165-0

8. COURROIE TRAPEZOIDALE
Dimensions des courroies trapezoïdales

1) Courroie trapézoïdale (Poulies Moteur - HST)
   Taille : SC64, Qté 1 / N° de l'lélément 89920-1170-0
2) Courroie trapézoïdale (Poulies Moteur - Pompe Hydraulique)
   Taille : SB29, Qté 1 / N° de l'lélément 89920-1175-0
3) Poulie du moteur
   N° de l'lélément 89920-1157-0
4) Poulie HST
   N° de l'lélément 89920-1165-0

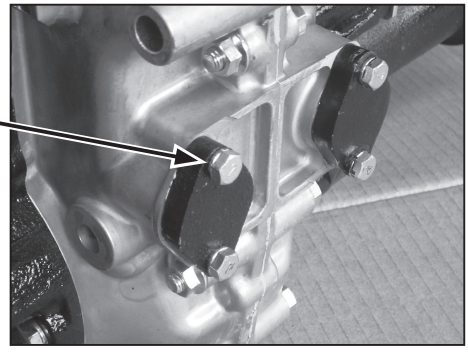


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4-10 Shifter support [BOLT]
: 100 ~ 120kgf · cm (9.8N · m ~ 11.8N · m)

4-10 Support, manchon de crabot [VIS]
: 100 ~ 120kgf · cm (9.8N · m ~ 11.8N · m)

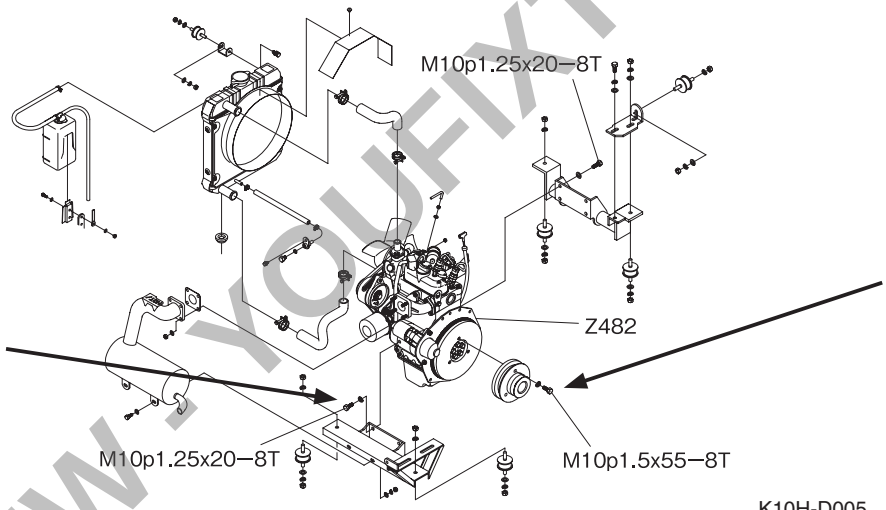


5) ENGINE PULLEY MOUTING BOLT
: 440 ~ 480kgf · cm (43.2N · m ~ 47.0N · m) (M10 x 55)

6) ENGINE MOUTING BOLT
: 460 ~ 500kgf · cm (45.1N · m ~ 49.1N · m) (M10 x 25)

5) VIS DE FICATION MOTEUR
: 440 ~ 480kgf · cm (43.2N · m ~ 47.0N · m) (M10 x 55)

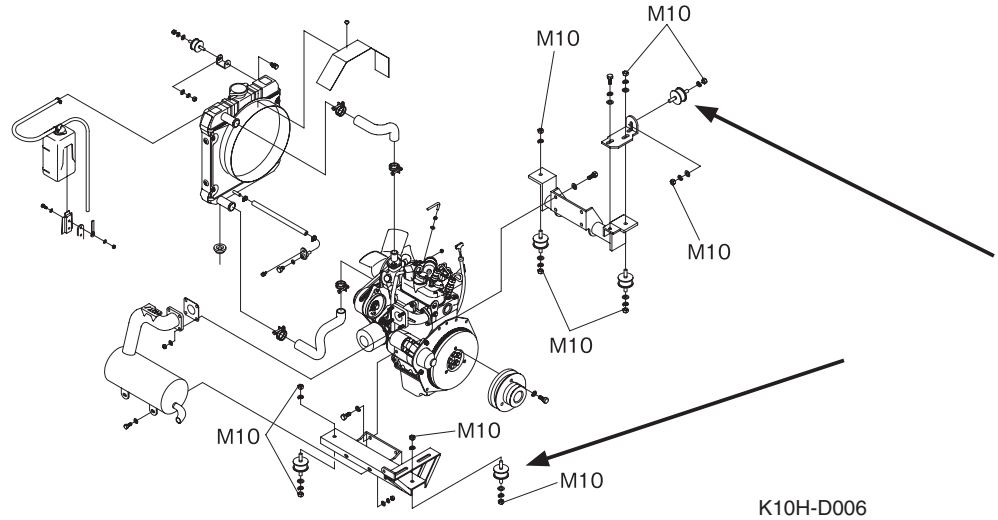
6) VIS DE FICATION MOTEUR
: 460 ~ 500kgf · cm (45.1N · m ~ 49.1N · m) (M10 x 25)



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7) CUSHION
: 445 ~ 455kgf · cm (43.7N · m ~ 44.6N · m)

7) COUSSIN
: 445 ~ 455kgf · cm (43.7N · m ~ 44.6N · m)



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1. TIGHTENING TORQUE

1) GENERAL BOLTS AND NUTS

Bolt torque

1. COUPLE DE SERRAGE

1) BOULONS ET ECROUS

Couple pour les boulons

Material Grade Grade de matière	Standard Bolt Boulon standardisé	Special Bolt Boulon spécial	Special Bolt Boulon spécial
Nominal Dia. Dia. nominal	SS41, S20C	S43C, S487C (Refined) S43C, S48C (Raffiné)	SCR3, SCM3 (Refined) SCR3, SCM3 (Raffiné)
M6	7.8 - 9.3 N.m 0.80 - 0.95 kgf-m 5.8 - 6.9 lb.ft.	9.8 - 11.3 N.m 1.00 - 1.15 kgf-m 7.2 - 8.3 lb.ft.	12.3 - 14.2 N.m 1.25 - 1.45 kgf-m 9.0 - 10.5 lb.ft.
M8	17.7 - 20.6 N.m 1.80 - 2.10 kgf-m 13.0 - 15.2 lb.ft.	23.5 - 27.5 N.m 2.40 - 2.80 kgf-m 17.4 - 20.3 lb.ft.	29.4 - 34.3 N.m 3.00 - 3.50 kgf-m 21.7 - 25.3 lb.ft.
M10	39.2 - 45.1 N.m 4.00 - 4.60 kgf-m 28.9 - 33.3 lb.ft.	48.0 - 55.9 N.m 4.90 - 5.70 kgf-m 35.4 - 41.2 lb.ft.	60.8 - 70.6 N.m 6.20 - 7.20 kgf-m 44.8 - 52.1 lb.ft.
M12	62.8 - 72.6 N.m 6.40 - 7.40 kgf-m 46.3 - 53.5 lb.ft.	77.5 - 90.2 N.m 7.90 - 9.20 kgf-m 57.1 - 66.5 lb.ft.	103.0 - 117.7 N.m 10.50 - 12.00 kgf-m 75.9 - 86.8 lb.ft.
M14	107.9 - 125.5 N.m 11.00 - 12.80 kgf-m 79.6 - 92.6 lb.ft.	123.6 - 147.1 N.m 12.60 - 15.00 kgf-m 91.1 - 108.5 lb.ft.	166.7 - 196.1 N.m 17.00 - 20.00 kgf-m 123.0 - 144.7 lb.ft.
M16	166.7 - 191.2 N.m 17.00 - 19.50 kgf-m 123.0 - 141.0 lb.ft.	196.1 - 225.5 N.m 20.00 - 23.00 kgf-m 144.7 - 166.4 lb.ft.	259.9 - 304.0 N.m 26.50 - 31.00 kgf-m 191.7 - 224.2 lb.ft.
M18	245.2 - 284.4 N.m 25.00 - 29.00 kgf-m 180.0 - 209.8 lb.ft.	274.6 - 318.7 N.m 28.00 - 32.50 kgf-m 202.5 - 235.1 lb.ft.	343.2 - 402.0 N.m 35.00 - 41.00 kgf-m 253.2 - 296.5 lb.ft.
M20	333.4 - 392.2 N.m 34.00 - 40.00 kgf-m 245.9 - 289.3 lb.ft.	367.7 - 431.5 N.m 37.50 - 44.00 kgf-m 271.2 - 318.2 lb.ft.	490.3 - 568.7 N.m 50.00 - 58.00 kgf-m 361.6 - 419.5 lb.ft.

Bolt material grades are shown by numbers punched on the bolt heads. Prior to tightening, be sure to check out the numbers as shown below.

Punched Number	Bolt Material Grade
None	Standard Bolts SS41, S20C
7	Standard Bolts SS43, S48C (Refined)
9	Special Bolts SCR3, SCM3 (Refined)

Grande de matière des boulons est indiqué par le numéro sur la tête de boulon. Pour le couple de serrage, vérifiez le numéro comme suivant.

Numéro marqué	Grade de matière des boulons
Nul	Boulon standardisé SS41, S20C
7	Boulon spécial S43C, S48C (Raffiné)
9	Boulon spécial SCR3, SCM3 (Raffiné)

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