

ASSEMBLY MANUAL Partie 2 - Assembly

Phoenix 400 Moteur 9.5 cv Kohler – Version 2019

HHO-Canada Inc

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Introduction

Before starting the assembly, please check the entire pallet to see if there are no missing parts. It is important to carefully read the entire manual before the beginning of the assembly in order to avoid any mistake or misunderstanding.

The assembly process has been simplified as much as possible, if you have any doubt, do not hesitate to contact us. We are available from Monday to Friday 8.30 am to 12am and 2pm to 5pm, by phone or mail (with picture if possible).

If a part seems damaged or non-compliant, please send us a picture by mail for verification. For any after sale service, please contact us by mail with the problem you have, along with a picture if possible, your address, phone number and the invoice number.

Do not hesitate to send us your remarks or suggestions to improve this manual and help us improve the quality of the service we offer.

We wish you well on the assembly and do not hesitate to contact us.



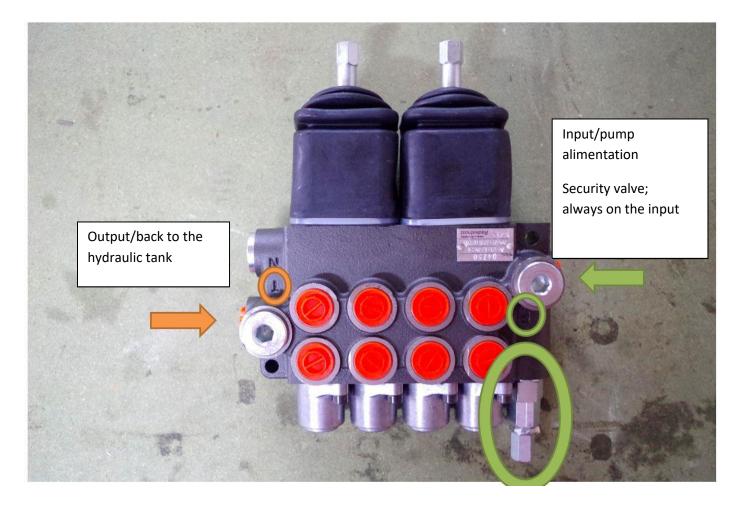
Assembly step by step

Our products are in constant evolution, even though we are regularly updating this document, it is possible that some pictures are not up to date and the part you have differs a little.

The pictures in this manual have been taken on several different assembly; the principles of assembly are the same as described here even if the picture differs from the part you may have received. If you have any doubts, do not hesitate to contact us.

Before beginning the assembly and to avoid any mistakes, it is important to know how a hydraulic distributor works, this part controls the alimentation of the cylinder and allows you to operate the excavator.

There is an input and an output, if you reverse them, the distributor is going to leek and you won't be able to operate the excavator.





Banjo bolts need 2 copper washers, one on top and one at the bottom.





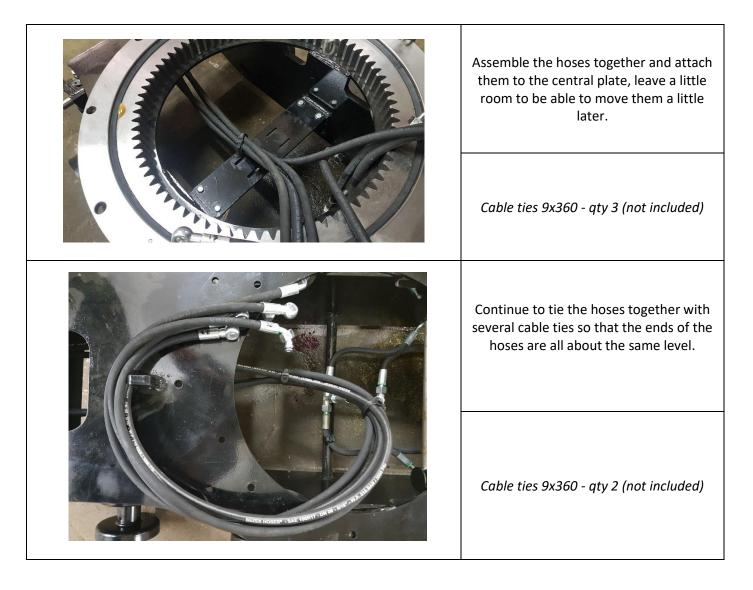














Place the slewing ring on the frame and bolt it down with 16 M12x30 bolts Put threadlocker on each bolt.

Professionnal ring - qty 1 12x30 bolt - qte 16 + threadlocker





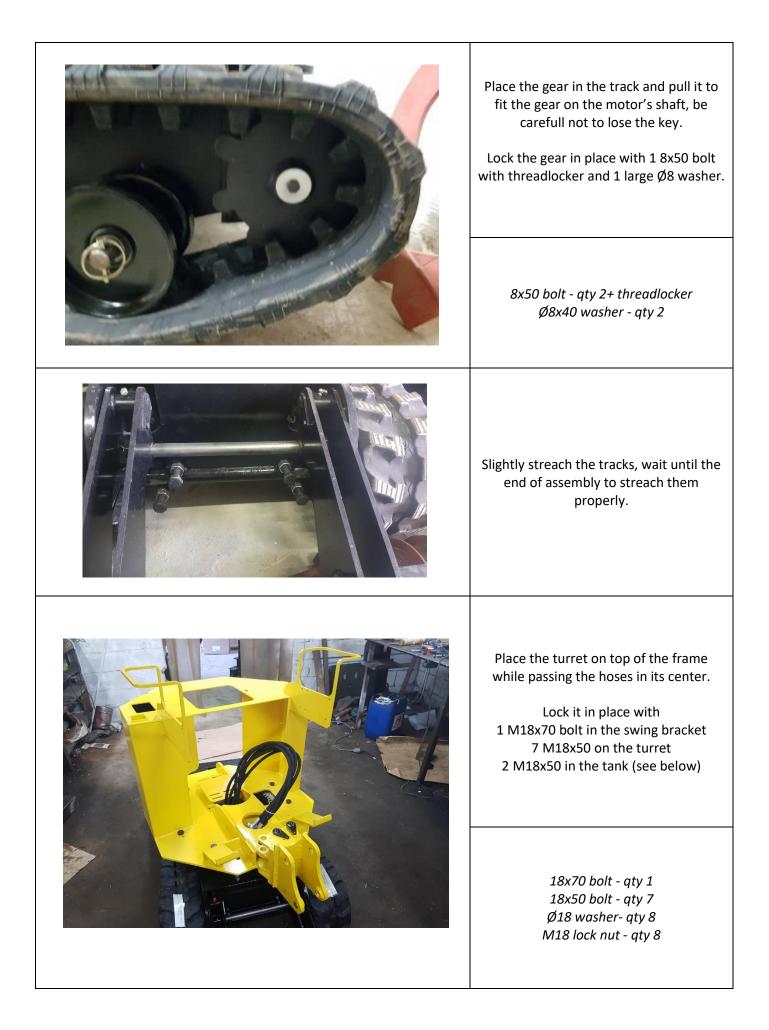












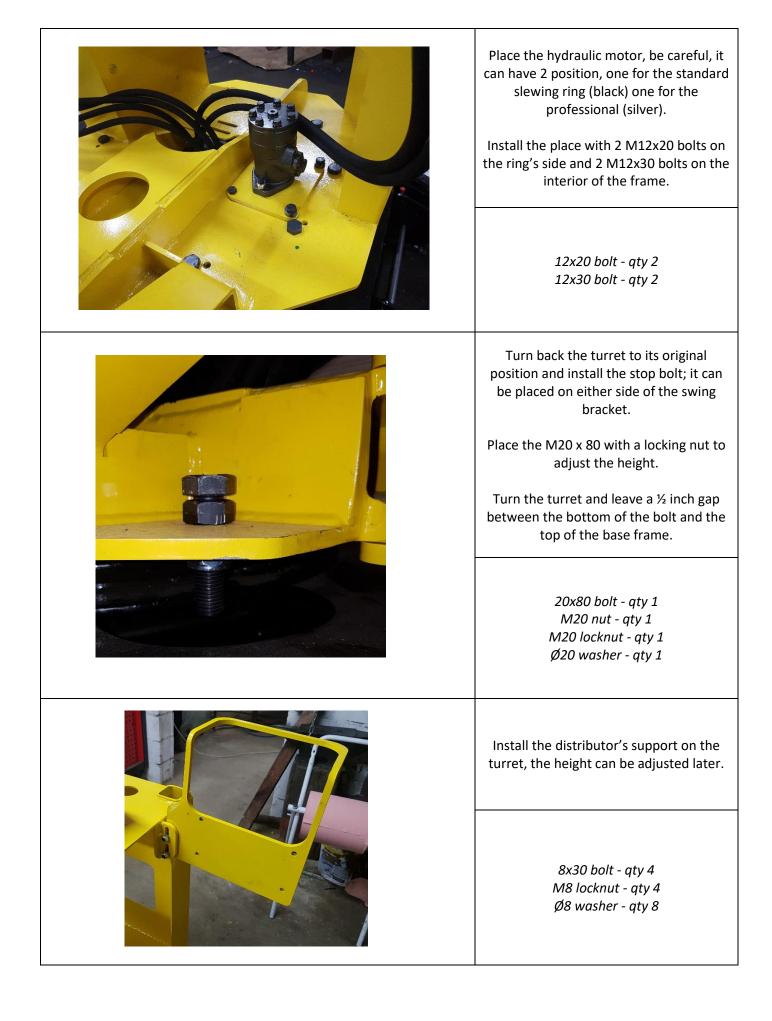
























Place the slewing bracket with a \emptyset 25 lg 210 shaft in the center and a \emptyset 25 lg 210 shaft with a handle on one of the sides.

Bracket PH400 - qty 1 Ø25 lg 210 teardrop shaft - qty 1 Ø25 lg 210 shaft + handle - qty 1



Install the boom and a 30/60 c 300 cylinder with the fitting pointing upward.

Center the boom and the cylinder using Ø25 washers as shims on each side.

Boom - qty 1 30/60 c 300 cylinder - qty 1 Ø25 lg 155 teardrop shaft- qty 3 Ø25 washer - qty 4 Ø6 pin - qty 3

Place a 30/50 c 300 cylinder on the boom.

Screw in 2 CM12L-12x17 elbow fittings with teflon ; orient them pointing toward the turret.

30/50 c 300 cylinder - qty 1 Ø25 lg 155 teardrop shaft - qty 1 Ø6 pin - qty 1 CM12L-12x17CO - qty 2 + teflon





Install the arm and a 30/50 c 300 cylinder on it.

Screw in 2 CM12L-12x17 elbow fittings with teflon ; orient them pointing toward the turret.

30/50 c 300 cylinder - qty 1 Ø25 lg 155 teardrop shaft - qty 1 Ø6 pin - qty 1 CM12L-12x17CO - qty 2 + teflon

Install the brackets on the arm.

Do not put the bucket now, i twill be easier later.

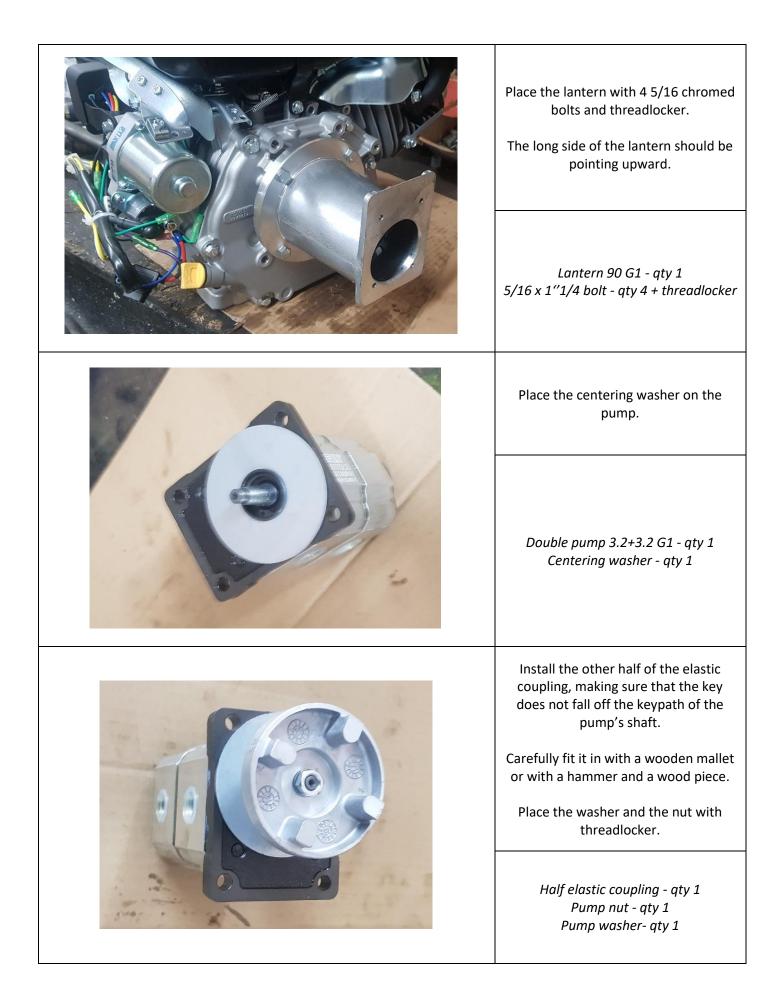
Arm bracket - qty 1 Bucket bracket - qty 1 Ø25 lg 175 + GE teardrop shaft - qty 2 Ø6 pin - qty 2



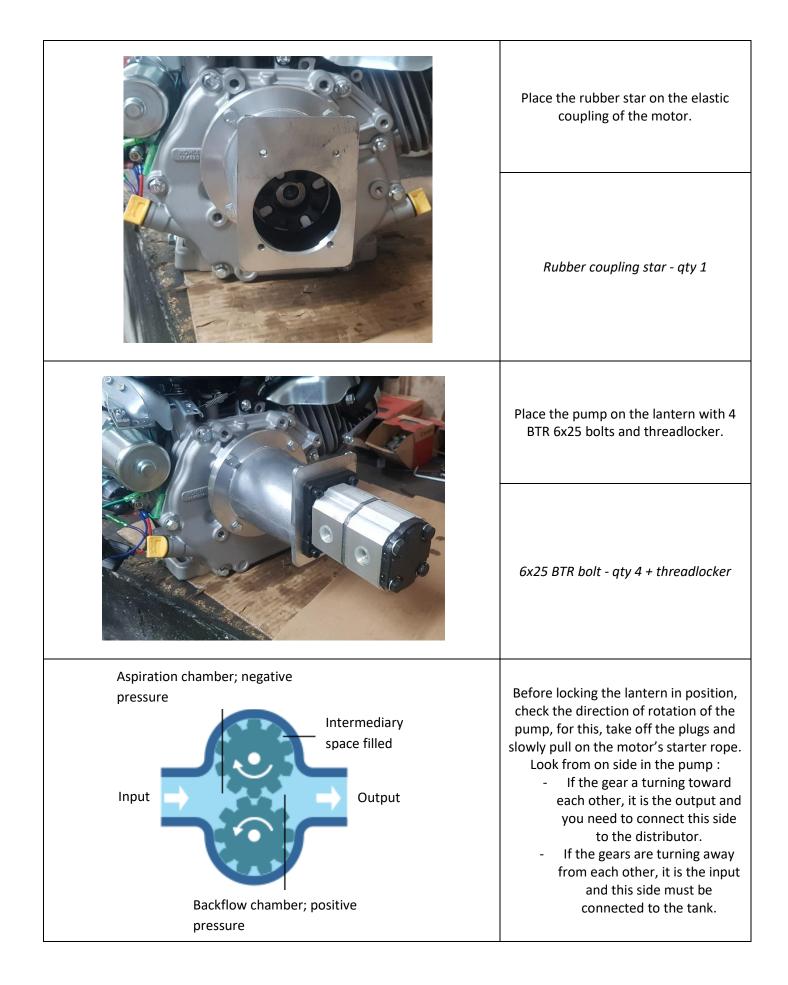


Motor assembly	The general principle is the same for every motor, only some small part may differ depending on the motor.		
	 Fill up the oil level, there is 2 plugs on either side of the motor. One of the plugs has a gauge to check oil level. Take the key off the keypath, add some gas in the tank and start the motor to check if there is no problems. 		
	Kohler CH395 motor - qty 1 Oil 5W30 (not included)		
	Put the key back on the keypath and install the elastic coupling on the shaft.		
	Half elastic coupling - qty 1		
C. C	Vis 6x10 STHC qte 1 + frein filet		





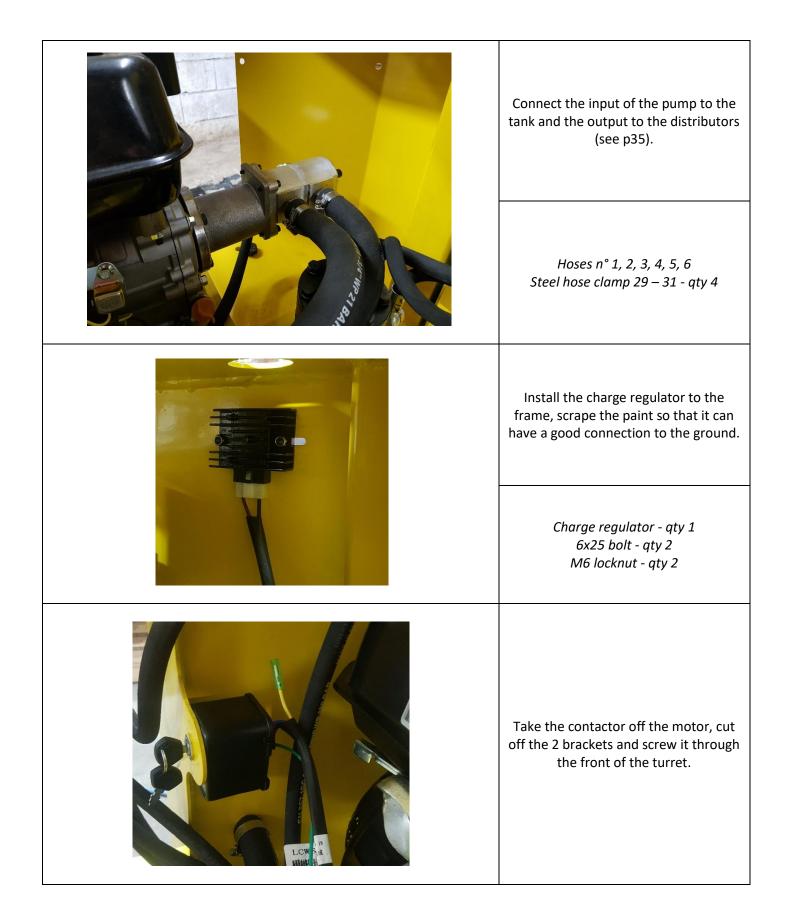




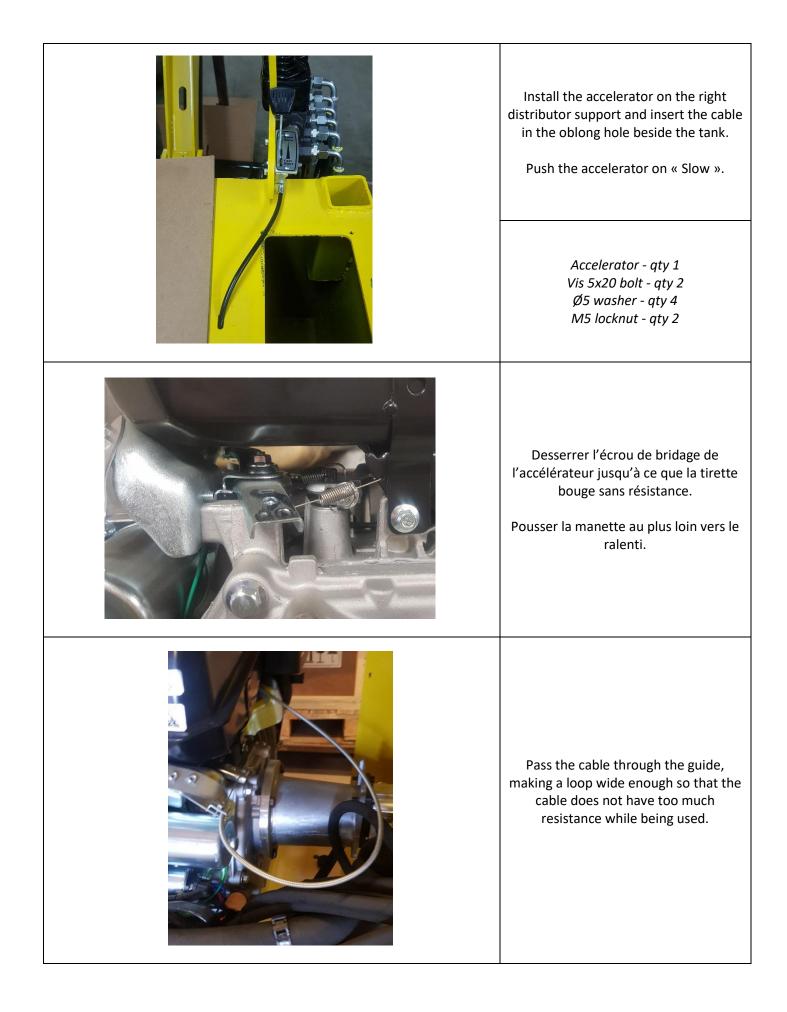




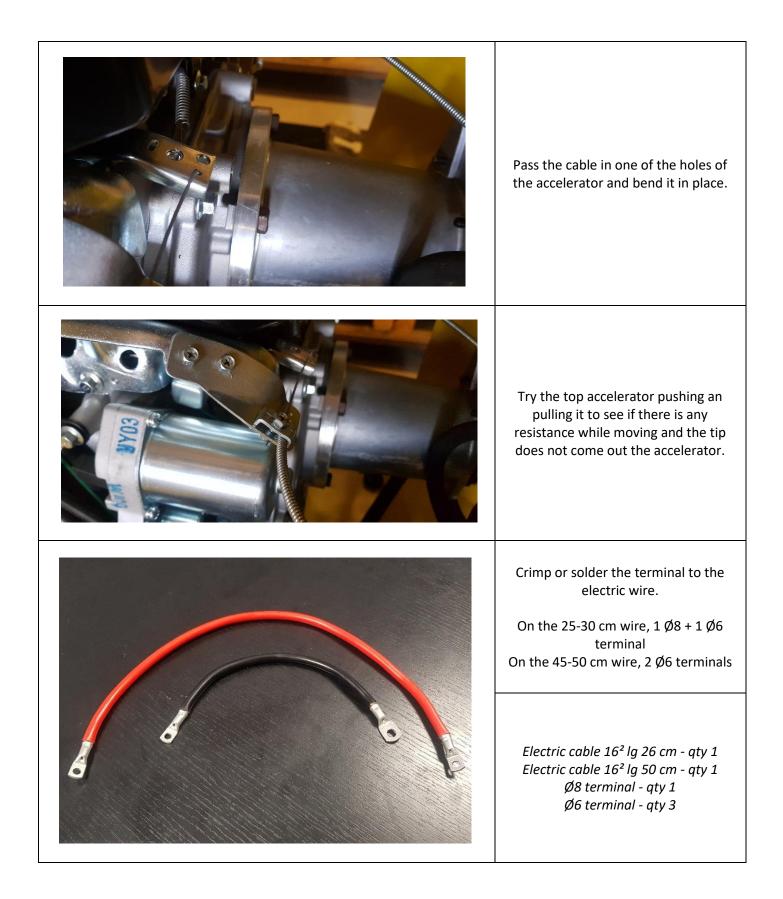




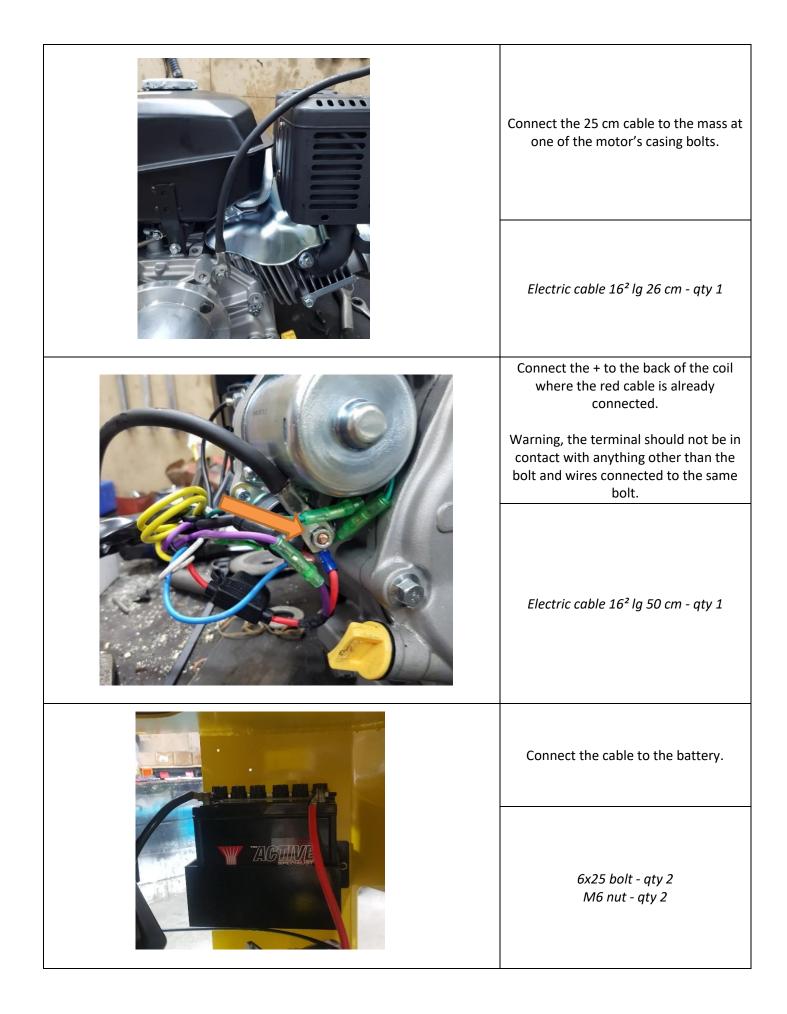




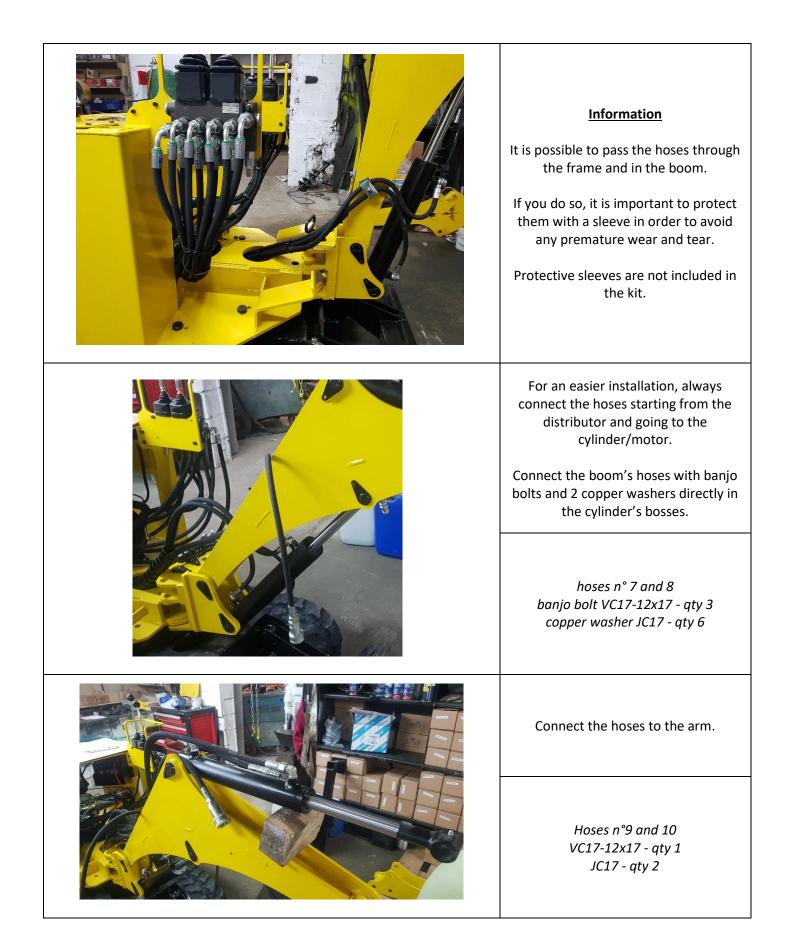




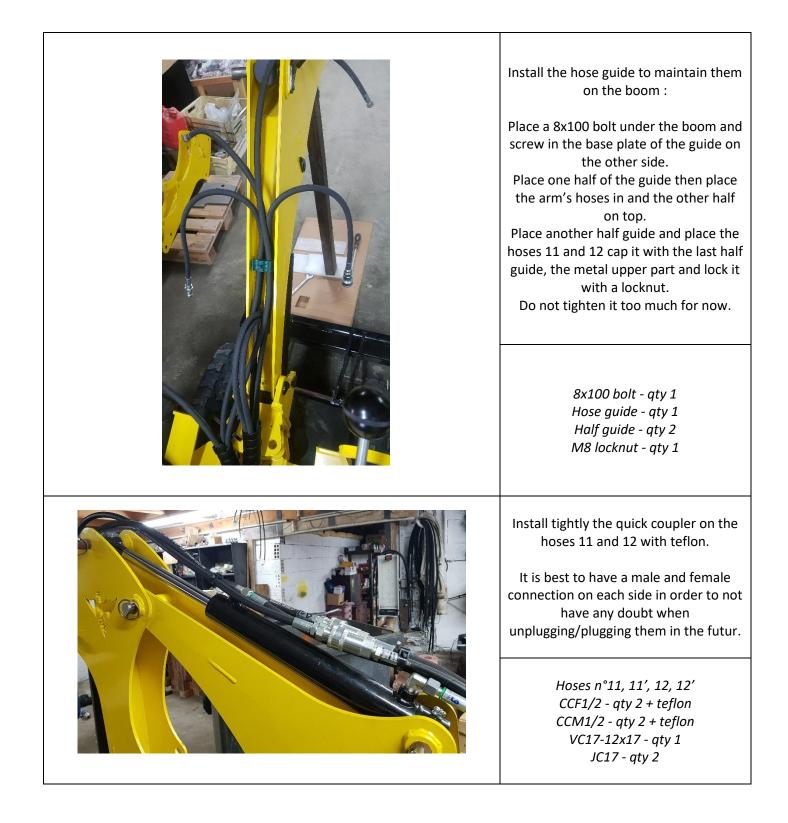




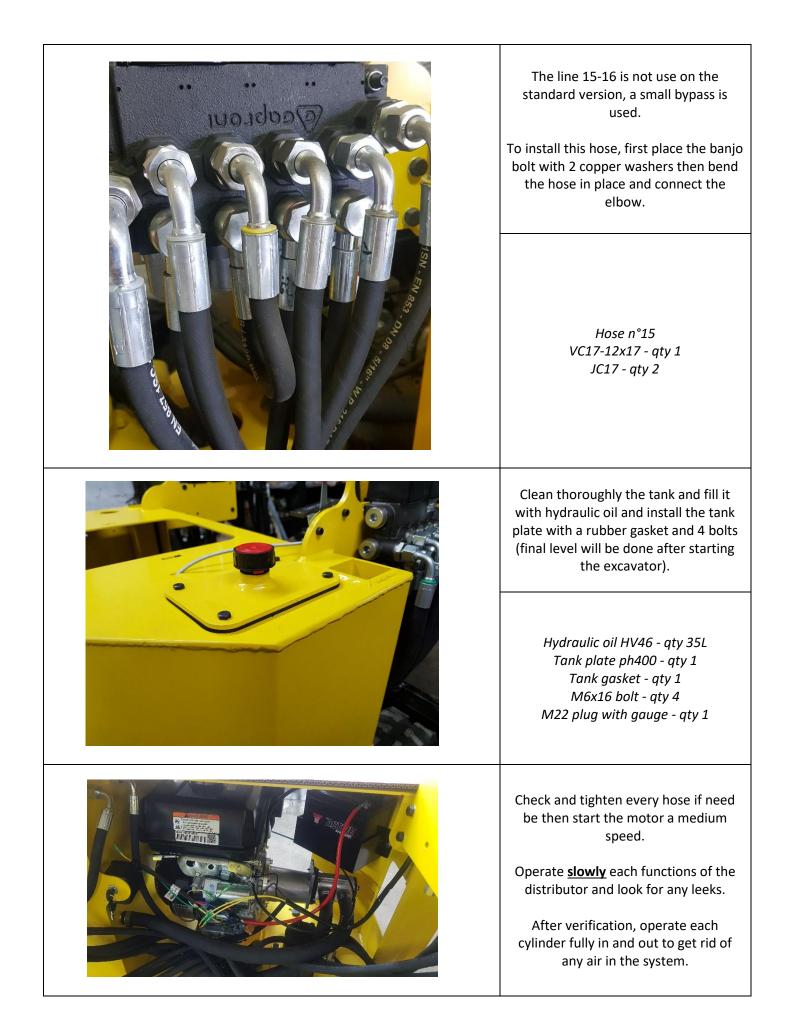




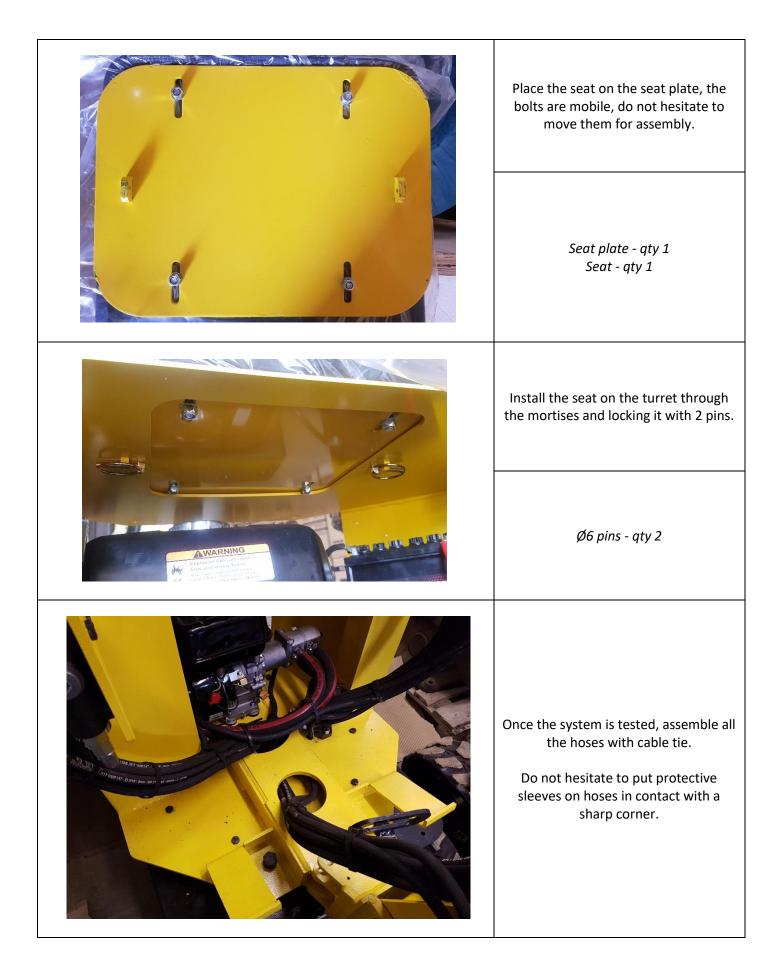
















Check on every articulation of the arm so that the hoses have enough length to operate every movement without problems.



Tension of the tracks : There is no ideal tension, this will depend on the land the excavator has to move on : On a muddy land, the tracks should not be too stretched, it should be a little floppy on the center. On a firm land, the tracks should be stretch almost straight (as on the picture) Do not overtighten the tracks, this will result in premature wear and tear of the tracks and the hydraulic motors.

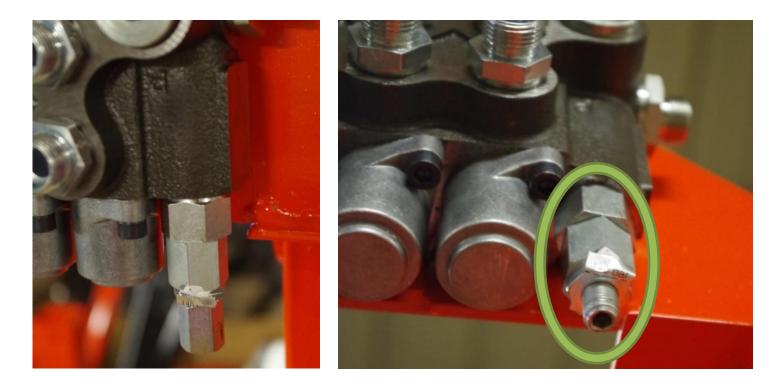


Before filling the tank, it is important to clean it to avoid having any debris/metal/dust tint the hydraulic system. The best way to clean it is with a wet clean rag then a magnet to get rid of any metallic particles.

If the pump is damaged because of a bad cleaning or maintenance of the hydraulic system, the warranty of this part as well as the warranty of the hydraulic motors may not be accepted.

After filling the tank with oil and starting the machine, it is possible to have a lack of power or that the motor stops while using any function, it will then be necessary to adjust the pressure.

To do so, take off the cap of the security valve then with an Allen key screw or unscrew the bolt circled in green:



Ideally, you need to measure the pressure at the entry of the distributor, the pressure should be at 150 bar, if you do not have the necessary equipment do the following:

- If you lack power tighten the bolt ¼ turn at a time until you have enough pressure so that the hydraulic motors work properly. Do not overtighten, this may cause damages to the pump and other parts of the hydraulic system.
- If the hydraulic motors stop the engine when activated, the pressure is to high and you need to loosen the bolt ¼ turn at a time.

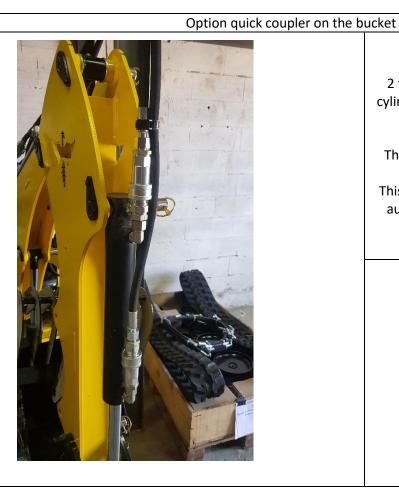
Check the oil level regularly, you need to drain the entire tank at least once a year.

Then maintenance schedule and procedure are listed in the user guide available on our website.

For the first hour of use, one should use the excavator in an open area to avoid collateral damages.

Do not hesitate to send us your comments about this guide in order to improve it.





2 fittings AT12L-12x17 to screw on the cylinder's elbows then 2 UM12L-15x21 on the hoses.

Then connect the quick couplers as you wish. This option allows the operator to use an

auxiliary hydraulic attachment quickly.

AT12L-15x21 - qty 2 UM12L-12x17 - qty 2 CCF1/2 - qty 2 CCM1/2 - qty 2

Option Hydraulic line for telescopic arm



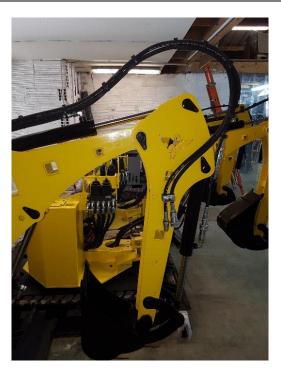
The hydraulic lines for the telescopic arm are 2 hoses connected from the distributor instead of the bypass 15-16 going to the telescopic arm.

Warning : option not compatible with the hydraulic line to the tip of the arm

Hose Ø8 lg 2550 C / MC1/2 – qty 1 Hose Ø8 lg 2500 B / MC1/2 - qty 1 CCF1/2 - qty1 CCM1/2 - qty 1



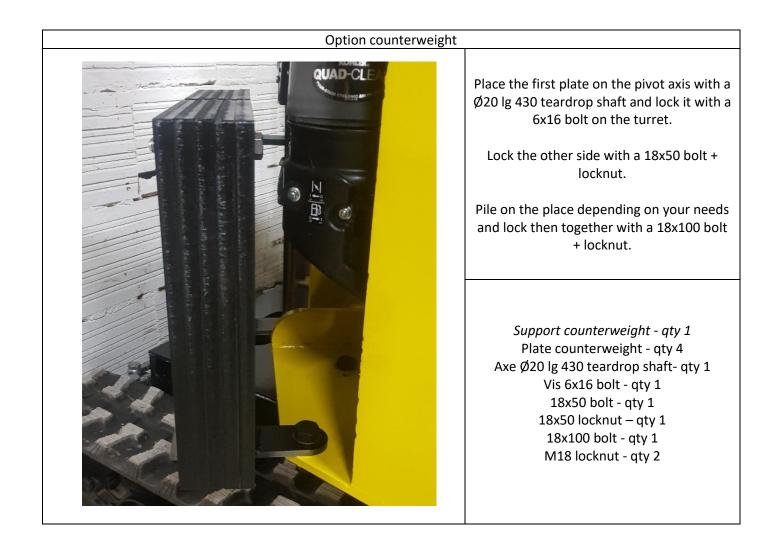
Option hydraulic line to the tip of the arm



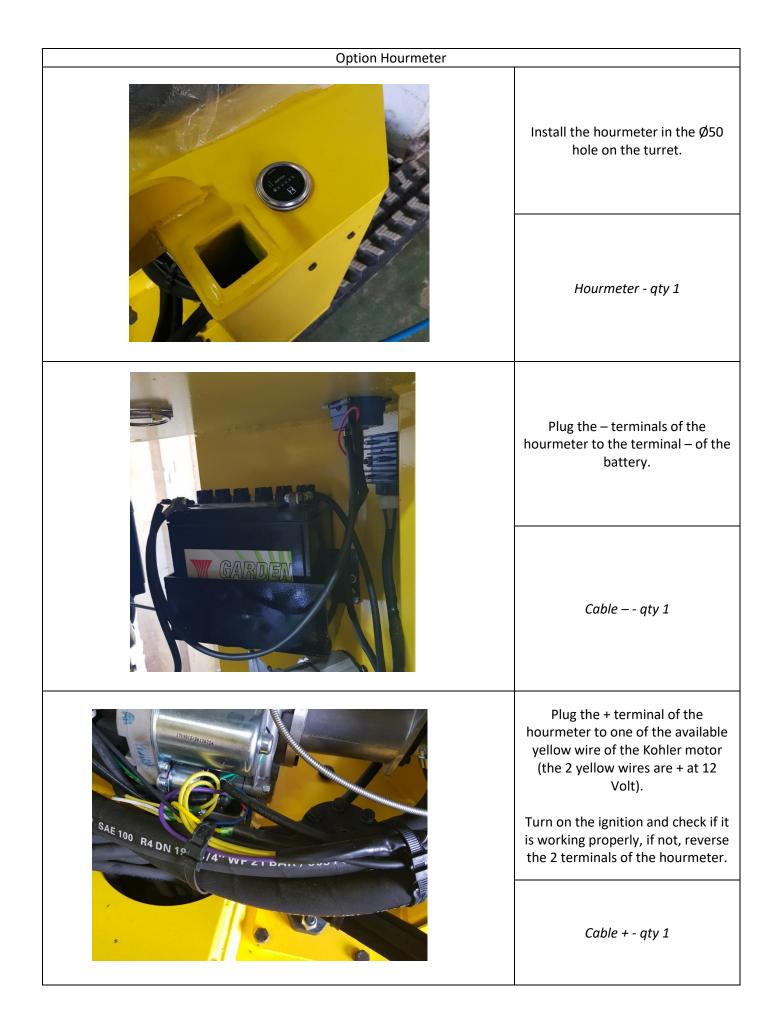
The hydraulic line to the tip of the arm are 2 hoses connected from the distributor instead of the bypass 15-16 going to the telescopic arm.

Warning : option not compatible with the Hydraulic line for telescopic arm

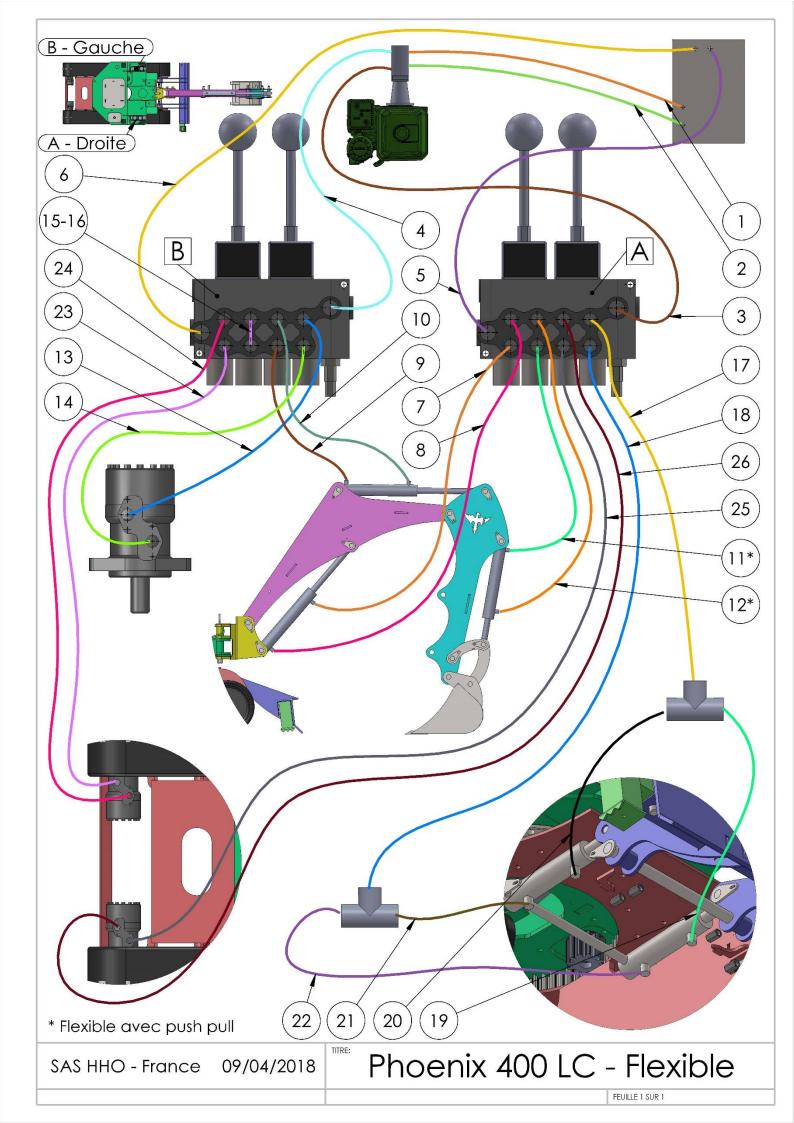
Hose Ø8 lg 3800 C / MC1/2 - qty 1 Hose Ø8 lg 3800 B / MC1/2 - qty 1 CCF1/2 - qty 1 CCM1/2 - qty 1 Hose guide - qty 1







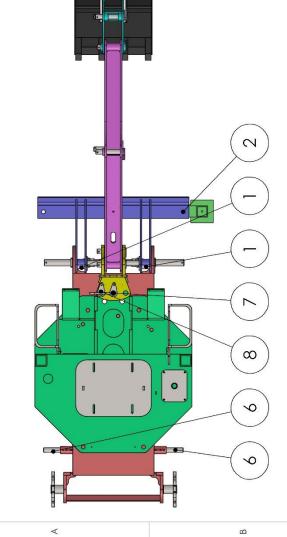




Listing PH400 STD - 29-11-18								
n°	Ø Flexible	Sertissage	Longueur	Emplacement				
1	19	-	700	Réservoir - Pompe 1				
2	19	-	700	Réservoir - Pompe 2				
3	10	C/C	1150	Sortie Pompe 1 - Entrée distributeur 1 (P)				
4	10	C/C	850	Sortie Pompe 2 - Entrée distributeur 2 (P)				
5	10	C/C	1000	Sortie distributeur 1 (T) - Retour réservoir				
6	10	C/C	1300	Sortie distributeur 2 (T) - Retour réservoir				
7	8	B/B	1800	Distributeur 1 - Vérin levée				
8	8	C/B	1880	Distributeur 1 - Vérin levée				
9	8	B/D	2150	Distributeur 2 - Vérin milieu de bras				
10	8	C/D	2550	Distributeur 2 - Vérin milieu de bras				
11	8	B17/MC1/2	2200	Distributeur 2 - Push pull 1 (male)				
11"	8	MC1/2/D	1070	Push pull 1 - Vérin de godet				
12	8	C/MC1/2	2300	Distributeur 2 - Push pull 2 (femelle)				
12"	8	MC1/2/D	1400	Push pull 2 - Vérin du godet				
13	8	C/B	600	Distributeur 1 - Moteur rotation hydraulique				
14	8	B/B	640	Distributeur 1 - Moteur rotation hydraulique				
15	8	C/B	180	Liaison haut/bas distri				
-	-	-	-	-				
17	8	C/D	1300	Distributeur 2 - Té 1 Lame				
18	8	B/D	1350	Distributeur 2 - Té 2 Lame				
19	8	C/D	250	Té 1 - Tête vérin lame 1				
20	8	C/D	250	Té 1 - Tête vérin lame 2				
21	8	C/D	250	Té 2 - Arrière vérin lame 1				
22	8	C/D	250	Té 2 - Arrière vérin lame 2				
23	8	B/B	1500	Distributeur 1 - Moteur hydraulique Gauche				
24	8	C/B	1600	Distributeur 1 - Moteur hydraulique Gauche				
25	8	B/B	1500	Distributeur 2 - Moteur hydraulique Droit				
26	8	C/B	1600	Distributeur 2 - Moteur hydraulique Droit				
			Ligne hydrau	bras téléscopique				
	8	C/MC1/2	2550	monter PUSH PULL 1/2 male				
	8	B17/MC1/2	2500	monter PUSH PULL 1/2 Femelle				
	8	MC1/2 / D	400	monter PUSH PULL 1/2 male				
	8	MC1/2 / D	400	monter PUSH PULL 1/2 Femelle				
	8	D/D	250	Ralonge flex godet + UD2L				
	8	D/D	250	Ralonge flex godet + UD2L				
Ligne hydrau Bout de flèche								
16	8	C/MC1/2	3800	monter PUSH PULL 1/2 male				
15	8	B17/MC1/2	3800	monter PUSH PULL 1/2 Femelle				

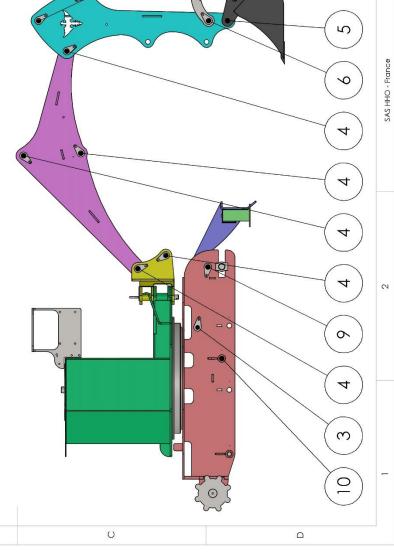


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	-0-	Designation	Axe Ø20 lg 60 + goutte d'eau	Axe Ø20 lg 90 + Rondelle	Axe Ø20 lg 450 + goutte d'eau	Axe Ø25 lg 155 + goutte d'eau	Axe Ø25 lg 175 + Rondelle	Axe Ø25 lg 175 + goutte d'eau	Axe Ø25 lg 210 + goutte d'eau	Axe Ø25 lg 210 + goutte d'eau + P	Axe Ø25 lg 450 + goutte d'eau	Axe Ø25 lg 740		me Ph400 - Axes	Date: 11/04/2019	ECHELLE:1:50 FEULLE 1 SUR 1
,	4	Ref	1 Axe Ø	2 Axe	3 Axe Ø	4 Axe Ø2	5 Axe	6 Axe Ø2	7 Axe Ø	8 Axe Ø25	9 Axe Ø	10			6 4 4	MATERIAU: Acier SJ235
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С

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Date:

N° F/D:

Phoenix 400 Soudé peint Client:

Configuration 9,5 cv - Soudée Peinte

			ion 9,9 cv - Soudee Pen			
			Option(s)			
	Attache rapide KIT / SP		Option	Push pull Godet *		
	Godet 20 KIT / SP		Option	Ligne hydrau AV *		
	Godet 30 KIT / SP		Option	Ligne hydrau AV - BT		
	Godet 40 KIT / SP					
	Godet 60 - Curage KIT / SP		Option	Joint tournant 6 voies		
	Godet 80 KIT / SP		Option	Compte heure		
	Dent ripper KIT / SP					
	Doigt manutention KIT/SP		Option	Huile hydraulique 10L		
	Godet chargeur KIT / SP		Option	Huile hydraulique 20L		
	Godet Rateau KIT / SP		Option	Huile moteur SAE30		
	Godet squelette KIT / SP		Option	Cartouche graisse 400 g		
	Arceau KIT / SP					
	Toit KIT / SP		FREINFIL-FORT	Frein fillet Serrage Fort 60G		
	Contre poids 95 kgs KIT / SP		COLLEHYDRO	Colle hydraulique 50 ml		
	Bras téléscopique KIT / SP		RUBAN-PTFE	Rouleau Ruban téflon		
	Taille haie KIT / SP		COLLIER-9×180	Collier installation 9 x 180		
			COLLIER-9x360	Collier installation 9 x 360		
			Acier		1	•
	Tendeur Ø35	1		Lame stabilisatrice	1	
	Base chenillard	1		Renvois 1	1	
	Tourelle	1		Renvois 2	1	
	Plaque siège	1		Engrenages	2	
	Plaque réservoir	1		Noix	1	
	Bras Levée	1		Pied stabilisateur	1	
	Bras Balancier	1		Plaque moteur rotation	1	
		I	Général			I
MOT-9,5CV-Kol	Moteur 9,5 CV Kolher	1	ROLLER 160-25	Roller 160 - 25	2	
LAG1-90	Lanterne 90 Groupe 1	1	ROLLER 240-25	Roller 240 - 25	2	
AEG1-25,40	Acc elastique G1	1	ROLLER 240-35	Roller 240 - 35	2	
PDG1-3,2+3,2 CT-D	Pompe 3,2 + 3,2 cc G1	1				
			VD25/40C100	Vérin 25/40c100	2	
	Couronne de flexibles	1	VD30/50c300	Vérin 30/50c300	2	
SIEGE-COQ	Siège coque	1	VD30/60c300	Vérin 30/60c300	1	
СОТ650-М6	Couronne orientation T-pro	1	MCRN200CDO	Moteur hydro 200	3	
PIG-E-M6-12D	Pignon engrenage M6	1			1	
			D4-2J-40L	Distri 4 éléments 2 joy	2	
	Batterie 12v	1				
	Support batterie	1	180x72x43	Chenilles	2	

			Axes			
A-20-60-GE	Axe Ø20 lg 60	2	A-25-155-1P-GE	Axe Ø25 lg 155 - 1 percage	7	
A-20-90-1P-R	Axe Ø20 lg 90 - 1 percage	1	A-25-175-1P-R	Axe Ø25 lg 175 - 1 percage	2	
A-20-450-GE	Axe Ø20 lg 435	1	A-25-175-1P-GE	Axe Ø25 lg 175 - 1 percage	4	
			A-25-210-GE	Axe Ø25 lg 210	1	
	Tube Ø42,4 ep3 lg 55	2	A-25-210-GE-P	Axe Ø25 lg 210 - Poignée	1	
			A-25-450-GE	Axe Ø25 lg 435	1	
			A-25 lg 740-2P	Axe Ø25 lg 740 - 2 perçage	1	
		- + +	Carton	- 1		
Bouchon M22	Bouchon avec jauge	1		Accelerateur	1	
C3/8-p	Crépine plate	2		Plaque joint reservoir	1	
EC19M3/8	Embout cannelé 3/8	4	RC10-10x34	Caoutchouc amortisseur	4	
UM12L-15x21	Raccord union 15x21	4	GF16	Guide Flexible double	2	
UM12L-12x17	Raccord union 12x17	14		Etage guide flexible	1	
CM12L-12x17CO	Raccord Coudé 12x17	4				
T12L	Té 12L	2		Cable Batterie 16 ² - 25 cm	1	
	Bouchon 12L	1		Cable Batterie 16 ² - 50 cm	1	
RM1/2-F3/8	Réduction M1/2-F3/8	6	CS29-31	Collier acier	4	
VC17-12x17	vis banjo Ø17	16		Cosses 16 ² à sertir Ø6	1	
JC17	joint cuivre Ø17	36		Cosses 16 ² à sertir Ø8	3	
JC18	Joint cuivre Ø18	2				
CCM1/2	Push pull 1/2	2	GR6-D	Graisseur	10	
CCF1/2	Push pull 1/2	2	GR6-90	Graisseur coudé 90	2	
CCF1/2	Push pun 1/2	2	GC006	Goupille	25	
	Rondelle ø5	4	GC008	Gouprile	25	
	Rondelle ø6	10				
	Rondelle ø8			Via STUC Gato	1	
		23		Vis STHC 6x10	1	
	Rondelle ø8 x 30 Rondelle ø8 x 40	2		Vis 5/16 x1"1/4	4	
		15		Ma Color DTD	12	
	Rondelle ø13	4		Vis 6x25 BTR	12	
	Rondelle ø18	8		Vis 8x20 BTR	2	
	Rondelle ø20	2		Vis 5x20 TH	2	
	Rondelle ø25 ep 1	10		Vis 6x16 TH	20	
	Rondelle ø25 ep 4	6		Vis 8x30 TH	8	
	Rondelle ø35	2		Vis 8x40 TH	1	
				Vis 8x50 TH	2	
	E			Vis 8x60 TH	8	
	Ecrou M5 stop	2		Vis 8x100 TH	1	
	Ecrou M6	2		Vis 12x20 TH	2	
	Ecrou M6 stop	2		Vis 12x30 TH	19	
	Ecrou M8 stop	20		Vis 12x50 TH	6	
	Ecrou M12 stop	6		Vis 16x100 TH	4	
	Ecrou M16	4		Vis 18x50 TH	9	
	Ecrou M18 stop	10		Vis 18x70 TH	1	
	Ecrou M20 stop	1		Vis 20x80 TH	1	
	Ecrou M20	1				