



PANDROL

HYDRAULIC ASSEMBLY WITH HONDA ENGINE GX 160QX TYPE

Ref 19511007

OPERATING AND MAINTENANCE MANUAL

Ref 42195001

HOMOLOGATION SNCF N° IMT 07054



PANDROL

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I – SAFETY LABELS EXPLANATION



ATTENTION ! The machine can be dangerous.
Careless and incorrect use can result in injury to the operator



Read carefully the operating manual instructions of use and make sure you understand them before using the machine.

II – GENERAL SAFETY INSTRUCTIONS

- Never use the hydraulic assembly until you have read and understood the directions for use
- Only authorised operators may operate and use the hydraulic assembly
- **Never run the engine in a closed or confined space**, exhaust gas contains toxic carbon monoxide, a fatal poison without smell
- Never use the hydraulic assembly when you are tired or under influence of medicines, alcohol or substances which can alter your sight, dexterity or appreciation capacity
- All maintenance operations must be achieved by qualified staff
- The operator must ensure that no one can affect his work (people, animals, flammable material)
- The operator must respect the regulations, procedures and particular orders of the railway operating Network
- Flexible and components must be verified before every use. Any damaged element must be rejected
- The hydraulic assembly weight is important, two persons are necessary to handle it
- Under no circumstances the original design and configuration of the hydraulic assembly should be modify without approval from RAILTECH
- Petrol tank filling up must be done engine stopped in a well aerated site, during this operation

DON'T SMOKE

DON'T REMAIN near a naked flame or near devices equipped with a pilot lamp or near any device that can create sparkles

DON'T SPILL ANY PETROL OUTSIDE THE TANK

- If clothes have been damped by petrol, change them immediately
- When engine is warm, do not fill the petrol tank right to the top, on account to its dilatation the petrol could leak out of the plug
- Don't use the hydraulic assembly on an inclined area, petrol can leak out of the tank
- Never use an engine which is not be equipped with an exhaust pipe, verify the exhaust pipe regularly and change it if necessary
- Don't put anything on a running engine, clean it regularly as well as the exhaust pipe and take off all flammable material
- WARNING ! DANGER OF BURNING : when engine is running don't touch the exhaust pipe, the cylinder or the cooling fans
- Don't fill up oil tank when engine is running
- The personal protective equipment may be necessary !

III - DESCRIPTIF

The hydraulic assembly is specially designed to supply with pressure and output :

the shearing machine EGH1 type reference 11332001

the shearing machine EGH2 type reference 11332002

IV – CONSIGNES D’UTILISATION

1-Storage

Never lay down the hydraulic assembly otherwise an oil leak can happen

2-Manutention

39KG is the weight of an assembly in order of running

Two persons, placed on either sides of the assembly, are necessary to lift it up by mean of the two handles of the frame



V – OPERATING

1-Pre-operation check

It's very important to verify the assembly integrity before any use

- Carry out a visual control of the flexible : verify the absence of cuts or burns that would let appear the metallic part of the flexible
- Verify the absence of oil leakage
- Verify the pump and engine tank oil level, if levels are low complete with recommended oil (See § V – 3.1)
- Verify the hydraulic couplings cleanliness before every connection

2-Thermic engine

2.1 Before starting up

- Check the engine oil level
- Check the oil level in the pump tank :

Never run the engine without oil in the tank, as this can cause the pump destruction

If the level is too low top it up with recommended oil

- Carefully read the manual delivered with the engine
- Check the air filter aspect :

Never run the engine without the air filter otherwise rapid engine wear will result

- Check petrol level : unleaded petrol. Tank filling up must be done engine stopped in a well aerated site
- For engine maintenance see the user's manual

2.2 Starting up the engine

- Open the petrol tap
- Move the choke lever to closed position
- Open slightly the throttle control lever
- Turn engine switch to the ON position
- Pull the starter grip lightly until resistance is felt, then pull briskly
- As soon as the engine is running, gradually move the choke lever to open position
- Position the throttle control lever on maximum speed position

**AVOID USING THE HYDRAULIC ASSEMBLY
IF FLEXIBLE ARE NOT CONNECTED O THE TOOL OR TO EACH OTHER**

2.3 Caution by cold weather

At a temperature inferior to 5°C, a preheating of the hydraulic circuit is necessary :

- connect the flexible to each other
- move the choke lever to closed position
- run the engine at idle speed for few minutes
- move gradually the choke to open position
- accelerate the engine for about 2 minutes
- stop the engine and then connect the flexible to the shearing machine

Engine running can by that time starts as well as the shearing machine work

2.4 Stop the engine

- Move the tool distributor in neutral position
- Move the throttle control lever fully to the low position
- Move the engine switch on OFF position
- Close the petrol supply tap
- Disconnect the flexible from the tool and connect them to each other so as to protect them from any pollution

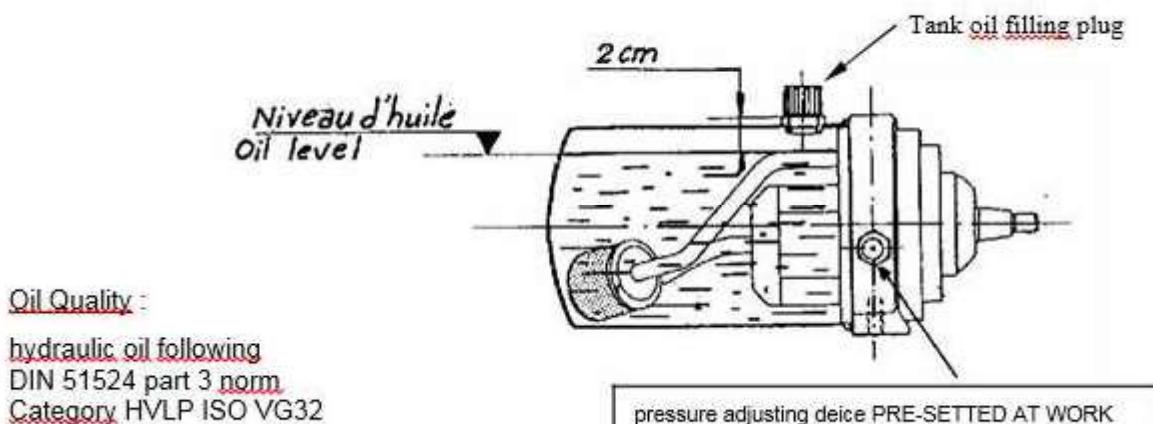
2.5 Engine maintenance

See the user's manual

3-Hydraulic pump

3.1 Oil level and quality

Blades separated at maximum position, fill the hydraulic oil tank to 2cm under the filling opening



3.2 Flexible with coupling connection on a shearing machine

- Verify the cleanliness of the hydraulic couplings before every connection

To realise the connections, move back and maintain the female couplings rings, connect them in the male couplings and release the rings.

To disconnect, move back and maintain the female couplings rings, pull out the flexible and release the rings

VI - MAINTENANCE

All maintenance operations must be achieved by a qualified staff.

Verify every year the pressure level of 250 bars by inserting a manometer between the shearing machine and the hydraulic assembly.



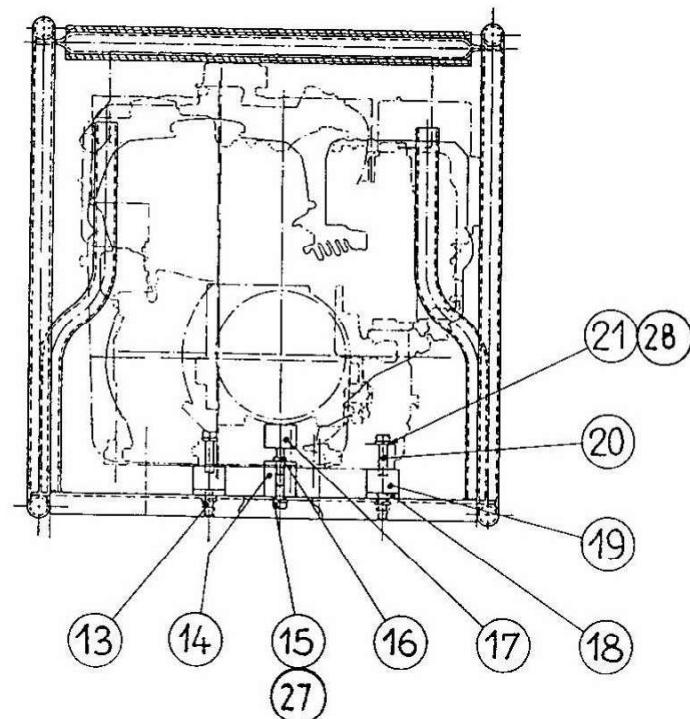
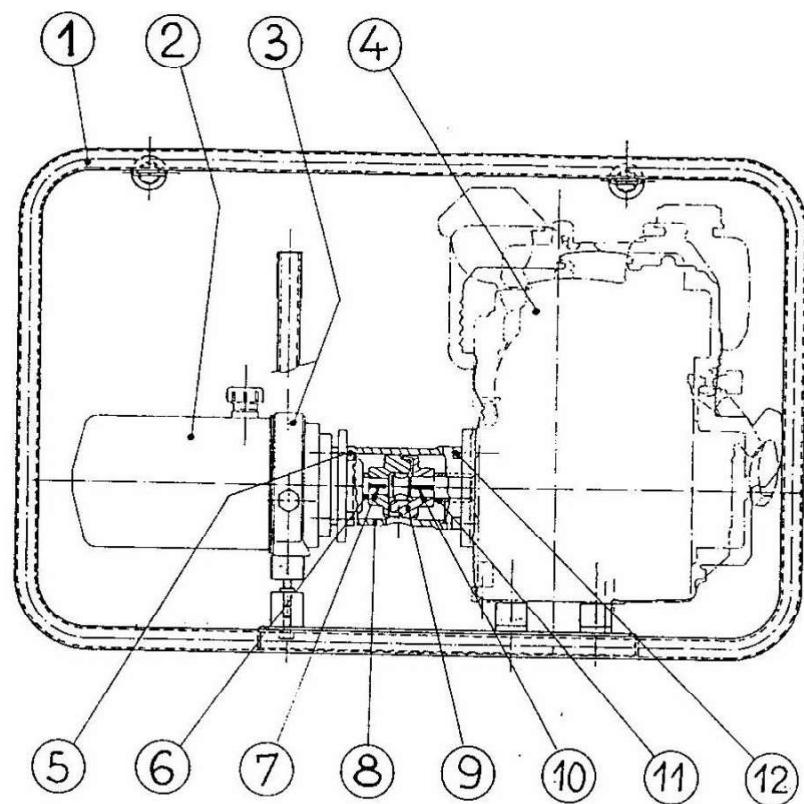
Take care of the cleanliness so as to make possible a good visual inspection of the components.

VII – TECHNICAL CHARACTERISTICS

Thermic engine :	HONDA GX160QX Power 4.0 KW at 3600 rpm
Pump :	HPI 2L tank Maximum pressure 250 bars Output 3.6L à 3600 rpm
Dimensions	(L x l x h) 740 x 440 x 420 mm
Weight	39Kg
Accoustic pressure	Lpa 96 dB
Vibration	6m/s



VII – LISTE DES PIECES DETACHEES SPARE PARTS LIST

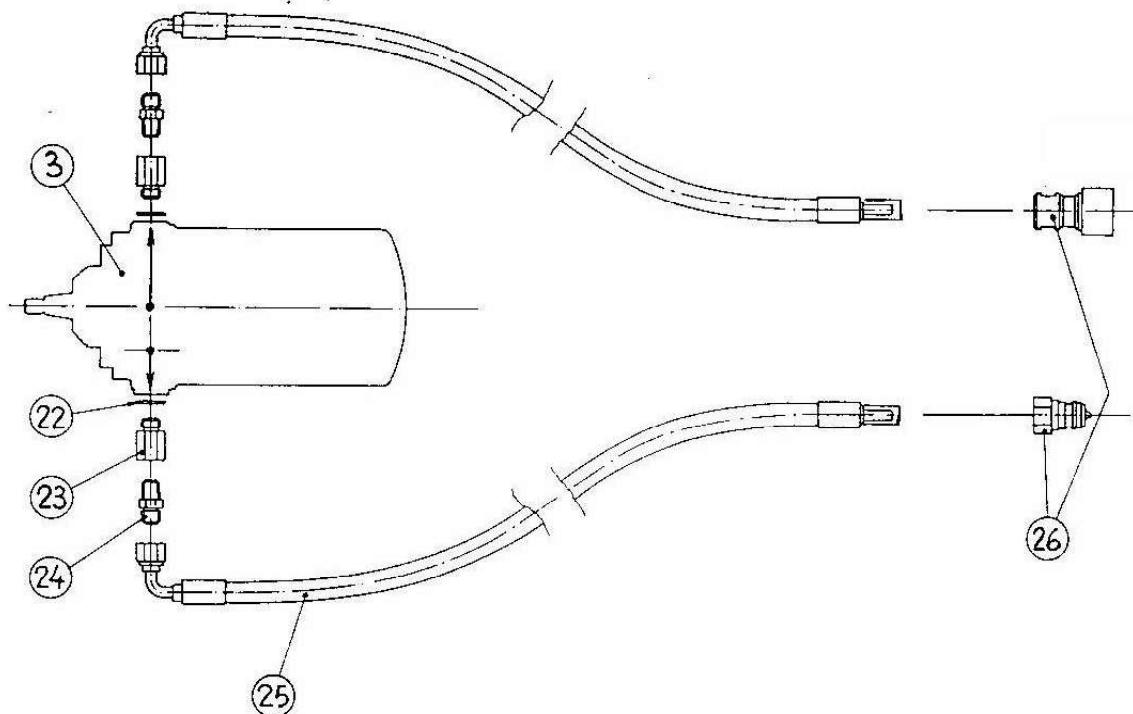


ENSEMBLE GROUPE HYDRAULIQUE
HYDRAULIC ASSEMBLY

Rep.	Qté.	Réf.	Désignation	Description
1	1	35910047	Châssis	Frame
*2-3	1	47103001	Pompe HPI réservoir 2l	Hydraulic pump with 2l oil tank
4	1	47002012	Moteur HONDA GX160 QX	HONDA Engine GX160QX type
5	4	41008022	Vis CHc M8 x 25	Screw CHc M8 x 25
6	1	31210123	Entretoise	Strut
*7	1	Avec rep. 2-3	Clavette	Cotter-pin with rep. 2-3
8	1	31230045	Lanterne	Cog-wheel
9	1	31230011	Accouplement	Coupling
10	1	41401008	Clavette	Cotter-pin
11	1	31210318	Entretoise côté moteur	Engine side strut
12	4	41099014	Vis CHc 5/16" x 7/8" 24 filets UNF	Screw CHc 5/16" x 7/8" 24 threadUNF
13	8	40908004	Ecrou HM8	Nut HM8
14	1	31110068	Rehausse	Spacer
15	1	41008008	Vis HM 8 x 16	Screw 8 x 16 HM
16	1	40908004	Ecrou HM 8	Nut HM 8
17	1	47330001	Plot élastique	Elastic stud
18	4	31210124	Rondelle	Washer
19	4	47330002	Plot élastique	Elastic stud
20	4	41008029	Vis HM8 x 30	Screw HM8 x 30
21	8	41108004	Rondelle W8	Washer W8
27	1	41108004	Rondelle W8	Washer W8
28	4	41108001	Rondelle M8N	Washer M8N

Pièces appartenant à l'ensemble repéré * - ne peuvent être vendues séparément

Parts belonging to the referenced system * - they cannot be sold separately



Rep.	Qté.	Réf.	Désignation	Description
3	1	47103001	Pompe HPI réservoir 2l	Hydraulic pump with 2l oil tank
22	2	47701021	Joint cuivre	Copper seal
23	2	47701022	Raccord union 8x13	Connector 8x13
24	2	47701023	Adaptateur	Adaptor
25	2	47701110	Flexible Lg. 4m PS : 250	Flexible hose 4m length
26	1	47702009	Coupleur Grommelle	Grommelle coupler

POCHETTE DE MAINTENANCE PRECONISEE

(RECOMMENDED MAINTENANCE KIT)

(Non fournie avec la machine - Not supplied with the machine)

1	47701025	Filtre de pompe	Pump filter
1	47701110	Flexible Lg. 4m PS 250 bar	Flexible hose 4m length 250 bar
1	47701051	Flexible Lg. 6m PS 205 bar	Flexible hose 6m length 250 bar

**FICHE DE CONTROLE
ATELIER**
**CONTROL CARD
WORK'S COPY**
19511007
GROUPE HYDRAULIQUE MOTEUR HONDA GX160 QX
HYDRAULIC ASSEMBLY HONDA ENGINE GX160 QX TYPE

N°	Désignation des opérations <i>Description of operation</i>	Contrôle <i>Checked by</i>
1	Pompe (<i>pump</i>) : Type (<i>Type</i>) N° (<i>Number</i>) Tarée à 250 bars (<i>Calibrated at 250 bars</i>)	
2	Moteur (<i>engine</i>) : Type (<i>Type</i>) N° (<i>Number</i>) Vitesse à vide (<i>Speed</i>)	
3	Vérification des constituants hydrauliques et mécaniques des liaisons <i>Check all hydraulic and mechanical linkages</i> Raccords Bouchons Tuyauteries Niveau d'huile Couplings Plugs Hoses Oil level	
4	Aspect général General aspect	
5	Outilage : clé à bougies pour moteur correspondant <i>Tools : Appropriate plug spanner for engine</i>	
6	Notice d'utilisation REF. 42195001 User's manual	

Date de fabrication *Date of manufacturing*
Fait à Raismes le *Drawn up in Raismes, the*
Nom *Name*
Signature *Signature*
Références à rappeler en cas de réclamation
In case of complaint, please quote these references

N° de moteur *Engine nbr.* : _____
N° de machine *Machine nbr.* : _____

**FICHE DE CONTROLE
ATELIER****CONTROL CARD
WORK'S COPY**

19511007

GROUPE HYDRAULIQUE MOTEUR HONDA GX160 QX

HYDRAULIC ASSEMBLY HONDA ENGINE GX160 QX TYPE

N°	Désignation des opérations <i>Description of operation</i>	Contrôle <i>Checked by</i>
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SAV / Commercial

Contacter votre représentant commercial / Contact your local representative

Ou / Or +33 (0) 1 46 88 17 00

Ou / Or Infos.pandrol-fr@pandrol.com

IV - ATTESTATION DE CONFORMITE

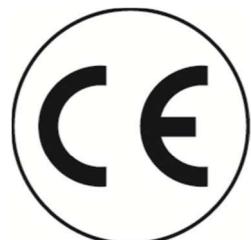
CERTIFICATE OF CONFORMITY

Le constructeur soussigné (the undersigned manufacturer)

PANDROL (DIVISION MATERIEL)

Z.I DU BAS PRE

59590 RAISMES



Certifie que le matériel neuf désigné ci-après

(certify that the under described products)

GROUPE HYDRAULIQUE THERMIQUE

HYDRAULIC ASSEMBLY

Moteur HONDA GX160 QX

HONDA engine GX160 QX

Référence 19511007

Référence 19511007

N° de machine (machine number) :

Est conforme (comply with)

- **A LA CONFORME EUROPEENE NF EN 13977**
(THE EUROPEENE NORM NF EN 13977)
- **AUX DISPOSITIONS REGLEMENTAIRES DEFINIES PAR LA DIRECTIVE 2006/42/CE**
(THE INFORMATIONS STATED IN THE LEGAL DOCUMENTATION OF THE DIRECTIVE 2006/42/CE)
- **Aux prescriptions de l'article R4313-20 (*procedure d'auto certification*)**
(the regulations of R4313-20 article – self certification procedure)
- **M. LISINSKI Aurélien est le détenteur du dossier technique**

Raismes, 05/2019
Bruno JOIRIS
Directeur Industriel

Aurélien LISINSKI
Responsible division matériel et équipement

PANDROL

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