



PANDROL

GRINDING UNIT WITH WHEEL BARROW TYPE

REF 42143002

OPERATING AND MAINTENANCE MANUAL

Ref 14321013

With a remote control switch

HONDA GX240 engine

HOMOLOGATION SNCF N° MTP18364



PANDROL

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En cas de litige, la version française fait référence – The French version will be decisive in cases of litigation

SUMMARY

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I – SAFETY LABELS EXPLANATION



WARNING ! The machine presents special risks.
Improper use can result in personal injury.



Read and understand the instructions carefully before using the machine.



WARNING to rotating parts



WARNING ! Sparks can cause a fire in the event of contact with flammable materials such as gasoline, wood, dry grass etc.

II – GENERAL SAFETY INSTRUCTIONS

- Never start up the grinding unit you have read and understood the directions for use
- Never use the grinding unit 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 wear the protective clothes necessary to the grinding operation :
 - goggles, leggings, gloves, etc...
- The operator must respect the regulations, procedures and particular orders of the railway operating Network
- Under no circumstances the original design and configuration of the grinding machine should be modify
- Three persons are necessary to handle and place it on track

- Refuel the tank in a well ventilated area, engine stopped ; don't overfill the tank during this operation :

- DON'T SMOKE
- DON'T REMAIN NEAR A NAKED FLAME
- DON'T SPILL ANY PETROL OUTSIDE THE TANK

- If some petrol has been spilled, immediately clean the machine and move it by a minimum of 5 meters before any starting up ; if clothes have been damped by petrol, change them immediately

- Don't overfill the tank, on account of its dilatation the petrol could leak off the tank plug

- Close the engine petrol valve immediately after grinding operation end

- The operator must ensure that no one can affect his work (people, animals...), and that the sparks cannot cause injury or fire

- The engine shall be stopped before grinding wheel replacement

- Never use damaged grinding wheels

- Verify that the locking screw of the grinding wheel is correctly tightened to prevent any risk of accident during grinding operation

- Check the safety guard good condition, its positioning and tightening before grinding

- Every time a new grinding wheel is fitted or reassembled, let it run slightly for 30 seconds. During this test all the staff must be kept at a distance with the exception of the user who must hold the machine in such a way that he is outside the wheel rotation area and away from the safety guard opening side

- Measure the grinding wheel rotation speed every time the machine is repaired

- Replace the safety guard every time a grinding wheel has burst

- Store the grinding wheels in a dry place

- Verify the grinding wheels deadline date of use

- Ensure that the grinding wheel restricted rotation speed is fully compatible with the tool speed

- **WARNING** : When engine stops running, the grinding wheel continues its rotation for several seconds

- Wearing personal protective equipment is mandatory



III – DESCRIPTION

1-Grinding unit description

The MFB type grinding machine is used for rail reprofiling operations after welding.

The operator may work in any position without any strain to the transmission flexible shaft because of the rotation of the engine on the frame and the two different positions of the front hand-barrow obtained by a special adjusting system.

2-Remote control switch description

The operator, acting on a switch located near the tool, controls an electromagnet action to accelerate the engine.

- The circuit is composed of two series switches ensuring the system control
 - the first, a protective one located on the driving case, enables to set the circuit into or out of operation
 - the second, located into the removable handle fixed on the flexible end on tool side, allows the operator to accelerate the engine and start up the grinding unit

The connection between the handle and the driving case is realized through a two conductors electrical cable, equipped at its end with a lockable connector and running along the flexible shaft sheath.

IV – USE INSTRUCTIONS

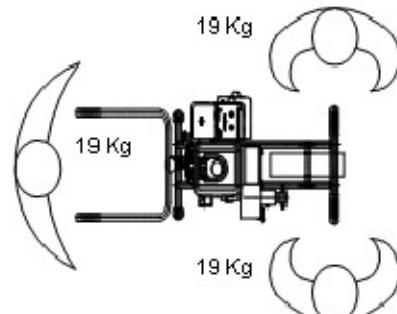
1-Storage

- Don't store the grinding unit outside without engine protection from rain
- Drain and clean the petrol circuit before a long storing time

2-Manutention

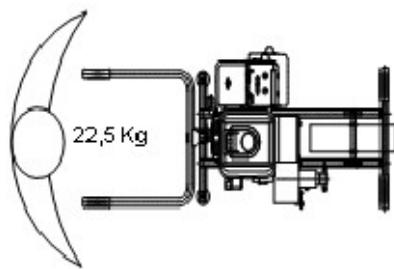
The weight of the unit in order to work is 57 Kg

- Three persons for its handling are necessary, handles are provided on the frame



- To move the unit on track

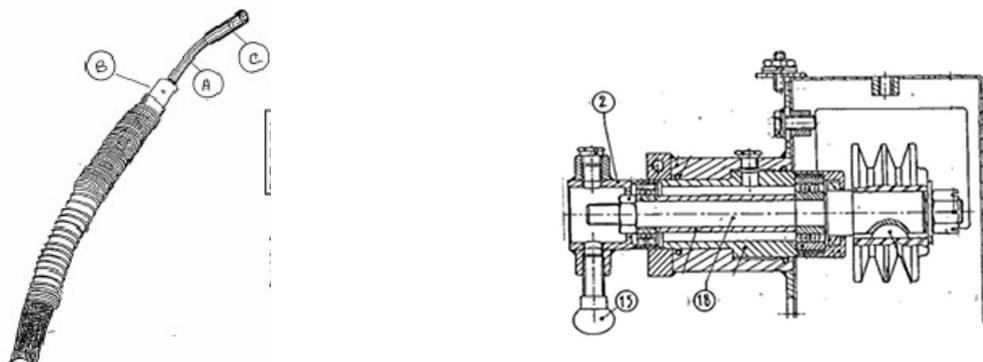
Only one person is necessary



3-Grinder equipment

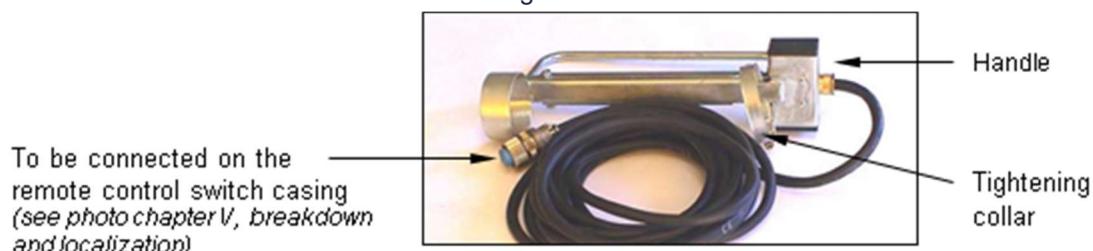
3.1 Fitting the grinder with flexible shaft

- By means of a threaded rod M12 take the transmission shaft (**A**) out of the engine side sheath smooth tip (**B**). Take off the rod and put a broach diameter 6 in the hole (**C**) at the flexible shaft extremity.
- By turning this broach fix the flexible shaft on the transmission head axis (**item 18**) of the transmission casing.
- Introduce the smooth tip (**B**) in the sheath support (**item 2**) and fix it with the flap screw (**item 15**).



3.2 Fitting the grinder with the remote control switch

- Position the remote control switch handle on the flexible shaft
- Tighten the tightening collar
- Connect the cable on the remote control switch casing



3.3 Fitting the grinder with tools

The flexible shaft and the tools are equipped with quick couplings. To realize the connections, move back and maintain the flexible female coupling ring, connect the male part of the tool coupling and release the ring. To disconnect move back and maintain the flexible female coupling ring, pull out the tool and release the ring.

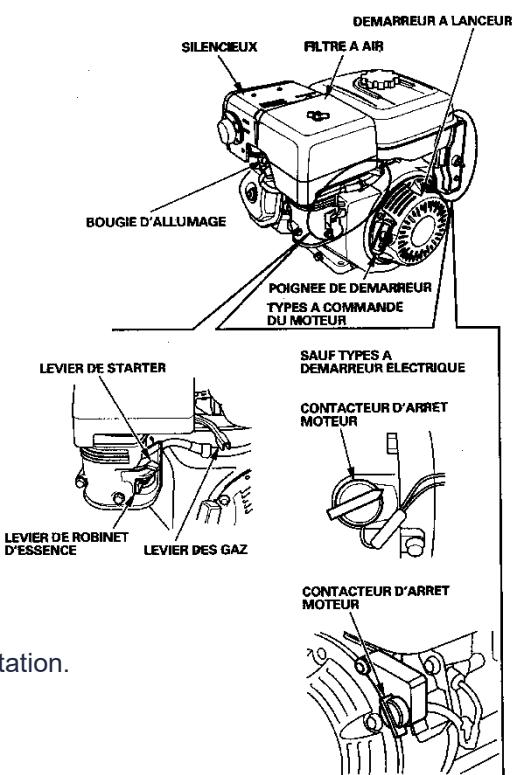
4-Operating

4.1 Measures to be taken before starting

- Verify the engine good working order following the prescriptions of the manufacturer's specific maintenance manual delivered with the machine
- Carry out a visual control of the flexible
- Verify the grinding wheel and its guard integrity
- Verify that the trigger of the remote control switch handle is not blocked up
- Verify the good connection between the electrical cable and the remote control switch casing

4.2 Starting up the engine

- Open the petrol tap
- Move the choke lever to closed position
- Move 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
- Place the driving case switch to the ON position
- Check that the control switch is functioning properly : Press the handle trigger, fixed on the tool side of the flexible shaft, so as to accelerate the engine and drive the grinding wheel by means of the centrifugal clutch and the transmission flexible. Release the trigger to stop the tool rotation.



4.3 Cautions by cold weather

The engine warmingup is recommended for few minutes :

- move the choke lever to closed position
- run the engine at idle speed for few minutes
- move lightly the choke lever to open position
- accelerate the engine for about two minutes
- stop the engine and connect the tool with the flexible

The grinding unit can start working.

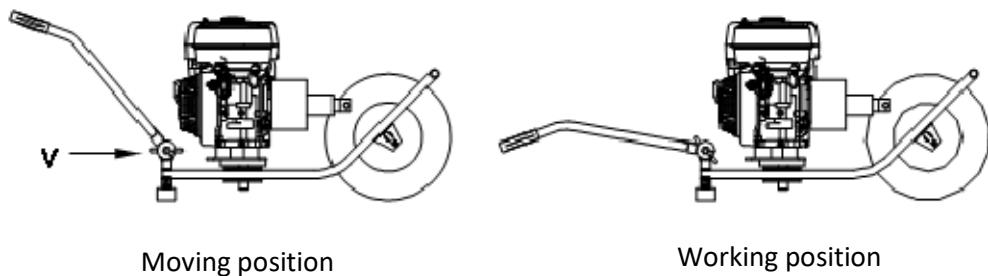
4.4 Stop the engine

- Place the driving case switch on "OFF" position
- Place the engine switch on "STOP" position
- Close the petrol tap

5-Grinder moving on track

The handles have two possible positions :

- A high position to move the grinder
- A low position during grinding operation so as to allow a rotation of the engine on 270°



Operating :

- Unscrew for few turns the axle screw **V**
- Pull back the handle so as to free the pin
- Incline the handle and engage the pin in the second housing
- Screw back the screw **V**

The handle in working position allows the flexible passage during the engine rotation.

6-Work station

The user must always work indoors lane when grinding.



7-Two wheels axle

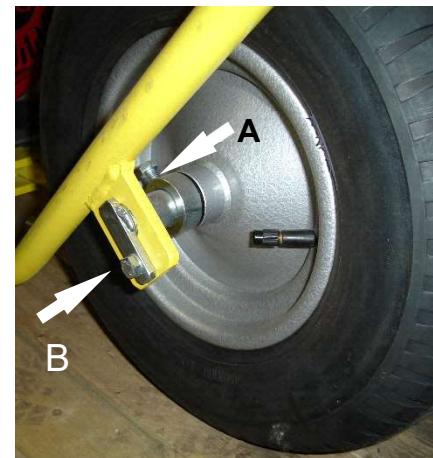
The grinder is manufactured at first with only one wheel.

The second wheel, the axle and two blocking collars are delivered separately

Transformation into two wheels grinder :

- Take off the wheel

- unscrew the two screws **A** of the two wheel positioning collars
- Unscrew the screw **B**
- Take off the axle



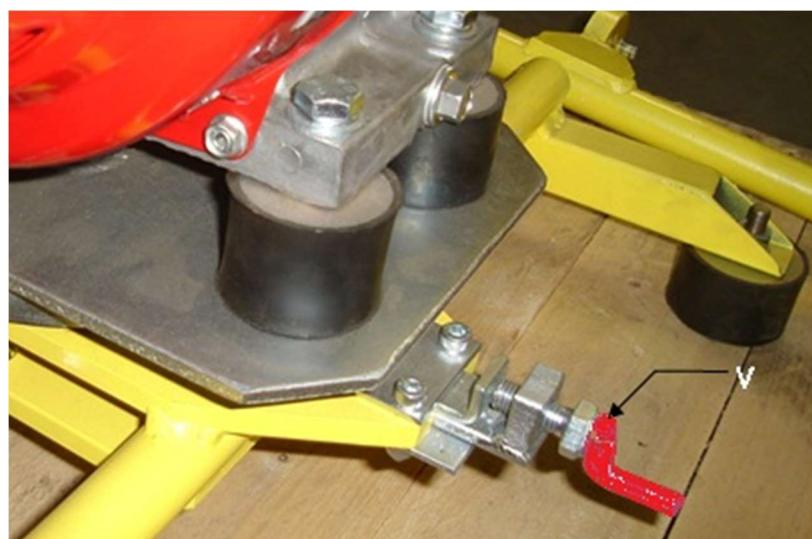
- Put on the two wheels

- Put on the two wheels axle
- tighten the screw **B**
- then put on in this order : the collar, the wheel, the collar at each axle extremity
- position the collars against the wheels and let a little clearance, then tighten the screws **A**

8- Engine rotation immobilization

The engine assembly is mounted on a pivot, this pivot must be immobilized during grinder moving.

A blocking system, located under the engine, equips the machine ; the immobilization can be made without tool by screwing the screw **V**



V – BREAK DOWN AND LOCALIZATION

The engine is running but not speed up when acting on the remote control switch.

1-Previous checking

- driving case switch on “ON” position
- handle connecting cable or driving case not damaged
- the good connection between the cable and the driving case
- if outside temperature is low, let the engine running few minutes

2-Localization

These verifications realised, if the engine does not speed up when acting on the remote control switch :

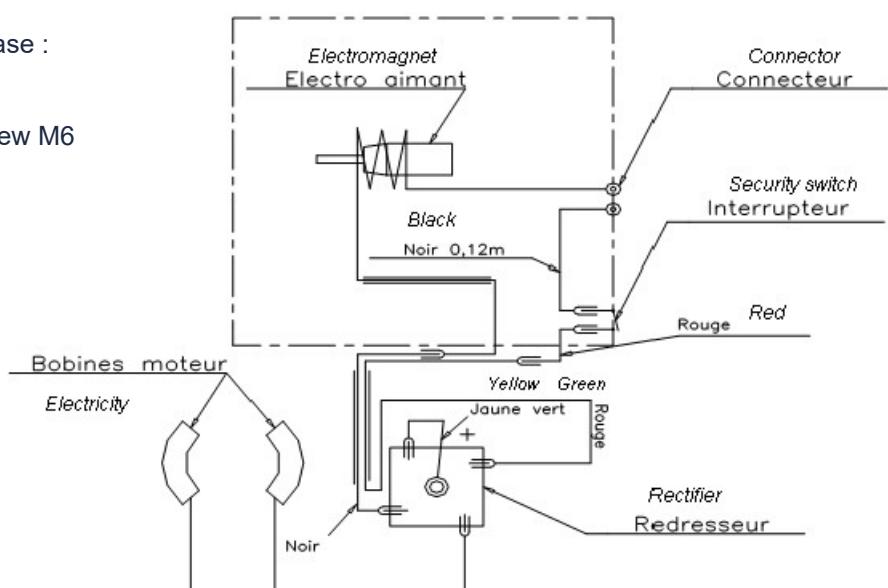
- for safety reason, disconnect the tool
- disconnect the driving case and, engine running, the switch on position “ON”, make a contact with a conductor between the two big pins of the connector foot.

- If the engine has speeded up, it means that the driving case is in good condition and that the defect comes from the connecting cable or the remote control handle

- if the engine has not speeded up, the defect comes from the driving case

- verification of the driving case :

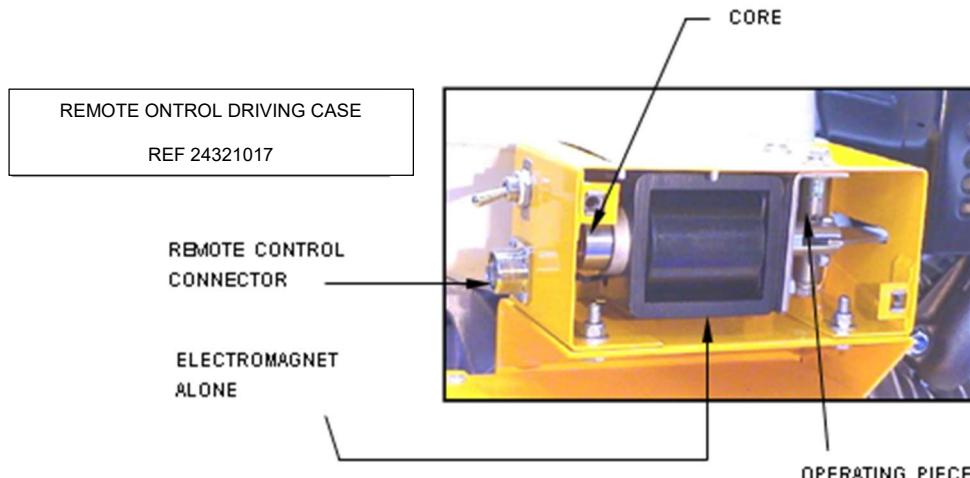
Open the case with a flat key for screw M6



- Verify that the electromagnet core slides freely
- Verify that the operating piece is interdependent with the electromagnet core
- Verify the tension at the electromagnet terminals :

9 VC \pm 5% at idle speed

12 VC \pm 10% at accelerated speed



VI – MAINTENANCE

| OBJECT | DESCRIPTION | PERIODICITY | | | |
|-----------------|--|-------------|-----------|------------|-------------------------------------|
| | | Before use | After use | 50h of use | Sign of wear or incorrect operation |
| Complete engine | Machine inspection | X | | | |
| Complete engine | Clean the machine with a clean cloth or with compressed gun to remove the dirt | | X | | |
| Feed shaft | Grease | | | X | |
| Belt | Replacement | | | | X |

Ensure the cleanliness of the grinder so as to allow a good visual inspection of the components.

- **THE ENGINE**

For starting and maintenance consult the constructor's manual.

IT'S ABSOLUTELY NECESSARY TO USE THE GRINDING UNIT IN MORE HORIZONTAL POSITION AS POSSIBLE SO AS TO ENSURE A CORRECT LUBRIFICATION OF THE ENGINE (with a maximum+/- 15 °)

- **THE FLEXIBLE**

It's necessary to grease regularly the flexible shaft

AFTER EVERY 10 HOURS WORK

Grease it through the lubricator by means of an adapted pump

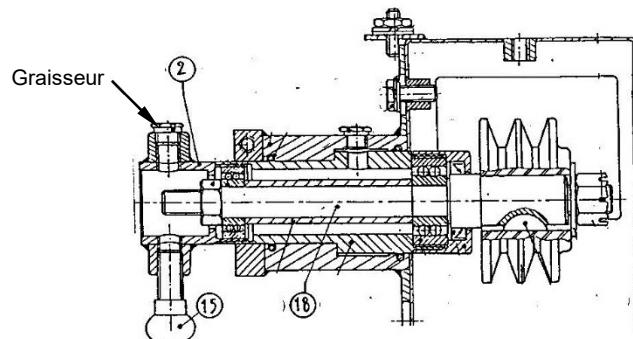
- Greasing pump extremity : six sides type

- Grease type :

Mineral lithium calcium grease

- Grease type :

Mineral lithium calcium grease

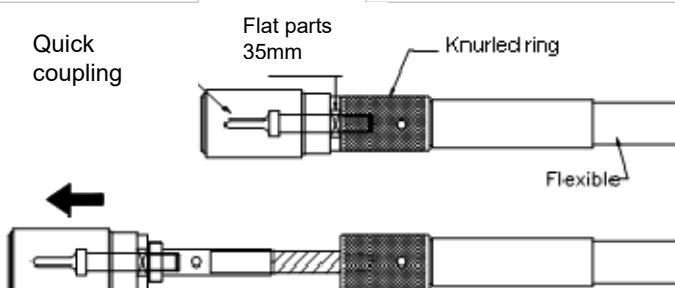


If there is no greasing pump available, it's necessary to take the flexible off the grinder. See chapter IV – 3.1 - Fitting the grinder with flexible shaft and proceed in reverse order.



Then disconnect the quick coupling from the flexible sheath ; to do so maintain the quick coupling by the two flat parts of 35mm and at the same time loosen the flexible knurled ring : pay attention ! left threaded ring

It's now possible to extract the supple flexible shaft to grease it ?



- THE TRANSMISSION

Tension de la courroie :

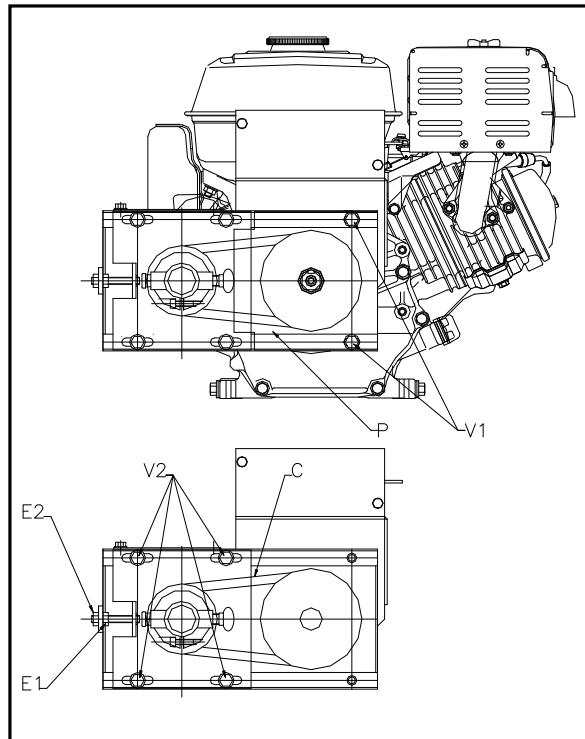
Adjustment of the belt tension

- Loosen screws **V1**
- Take off the plate **P**
- verify the belt tension

It can be embedded 5mm by pushing on point C with the finger.

If it is embedded more than 5 mm, it's necessary to retighten the belt by operating the following procedure :

- Unscrew the four screws **V2**
- Loosen a little the nut **E1**
- Tighten the nut **E2** until a correct belt tension is obtained
- Retighten the nut **E1** and screw the four screws **V2**
- Put at its place the plate **P**
- Put back and tighten strongly the two screws **V1**



VII - SIGNALISATION

Ou MFBs benefit from a traceability included on this plate of firm.

PLAQUE DE FIRME

| | | | |
|---|---------------|---------|---|
|  Partners in excellence | | Norme: |   |
| | | Type : | |
| Agrément SNCF : | | | |
| Réf : | N° de série : | Année : | |
| Trs/min Outil Ø : | | mm | Masse : Kg |

VII – TECHNICALS CHARACTERISTICS

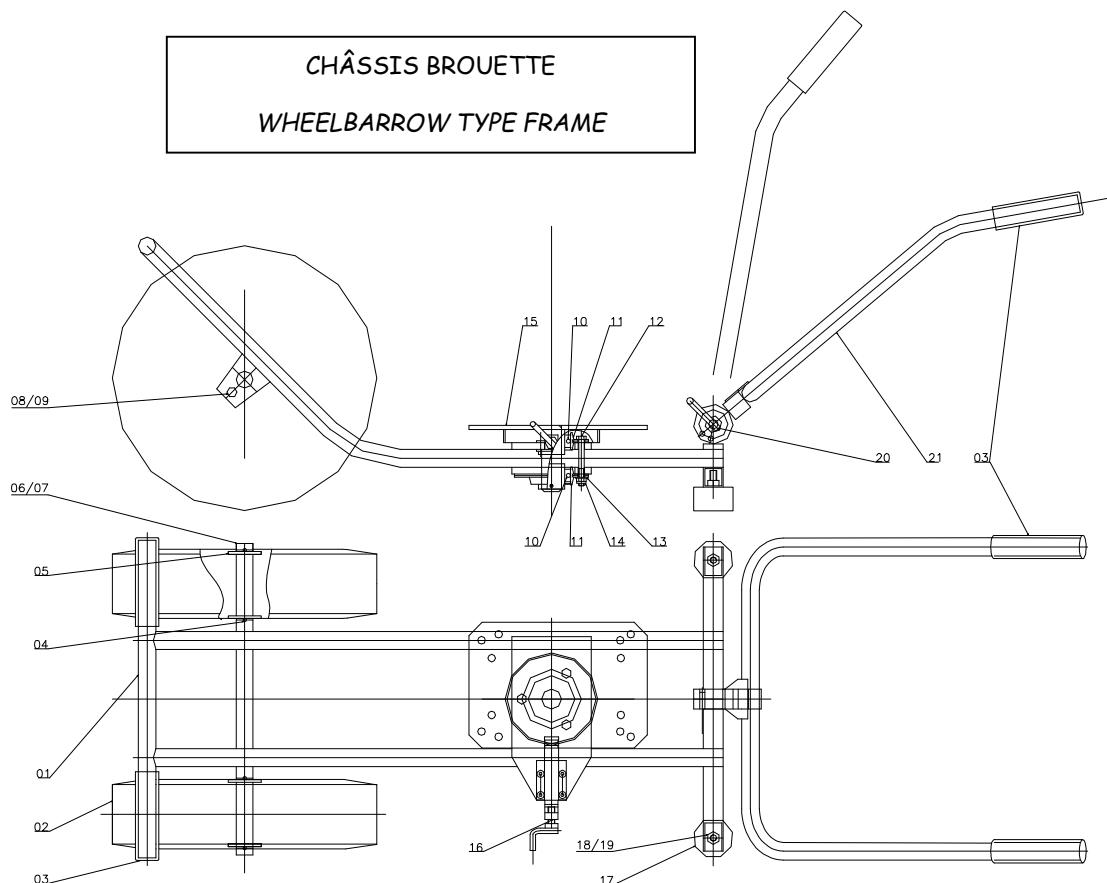
GRINDING UNIT WITH SHAFT WHEELBARROW TYPE MFB

| | |
|-------------------------------------|--|
| ENGINE POWER | HONDA GX 240 5.9 KW (7 HP) at 3600 rpm maxi |
| TOOLS ROTATION SPEED | 4800 rpm ± 150 |
| DIMENSIONS | 950 X 600 X 740 mm |
| WEIGHT | 57 KG |
| NOISE LEVEL | |
| Accoustic pressure Lpa | 93 dB (A) |
| Accoustic power Lwa | 101,5 dB (A) |
| VIBRATIONS LEVEL | |
| According to NF ENV25439 - ISO 5349 | ON THE TOOL |
| - Lapidry grinding wheel | 12 ms ⁻² |
| - Tangential grinding wheel | 13 ms ⁻² |

WARNING ! IT'S ABSOLUTELY NECESSARY TO USE THE GRINDING UNIT IN MORE HORIZONTAL POSITION AS POSSIBLE SO A TO ENSURE A CORRECT LUBRIFICATION OF THE ENGINE

VIII – LISTE DES PIECES DETACHEES SPARE LIST

| | PAGES | SPARE PARTS |
|---------------------------------------|---------|---|
| Châssis brouette | 28 | <i>Wheelbarrow type frame</i> |
| Transmission par embrayage centrifuge | 29 – 30 | <i>Transmission by centrifugal clutch</i> |
| Raccord rapide à billes | 31 | <i>Ball quick coupling</i> |
| Flexible et transmission de flexible | 32 | <i>Flexible shaft</i> |
| Schéma d'ensemble des outils | 33 | <i>Tools general diagram</i> |
| Têtes lapidaires surbaissées | 34 – 35 | <i>Complete angle heads</i> |
| Ensembles têtes droites | 36 à 39 | <i>Straight heads sets</i> |
| Outilage | 40 | <i>Accessories</i> |

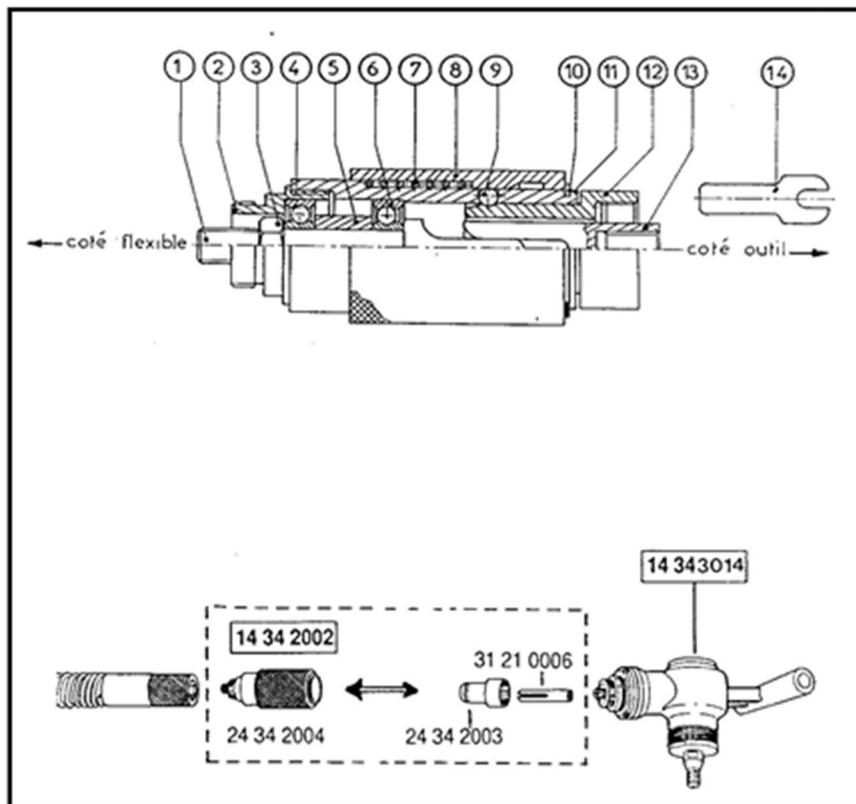




| Rep | Réf. | Qté | Désignation | Description |
|-----|-------------|-----|----------------------------------|---|
| 1 | 24321012 | 1 | Châssis avec brancard orientable | Frame with a 2 positions hand barrow |
| 2 | 48002005 | 2 | Roue gonflable Ø 400 mm | Wheel Ø 400 mm |
| 3 | 47401002 | 4 | Poignée pour tube 20x27 | Handle for tube 20x27 |
| 4 | 41006016 | 4 | Vis Hc M6 x 10 | Hc M6 x 10 |
| 5 | 45501001 | 4 | Bague d'arrêt | Retaining ring |
| 6 | 35910251 | 1 | Axe version 1 roue | One wheel axis |
| 7 | 35910250 | 1 | Axe version 2 roues | Two wheels axis |
| 8 | 41008008 | 1 | Vis HM8x16 | HM8x16 screw |
| 9 | 41108004 | 1 | Rondelle W8 | W8 washer |
| 10 | 44010028 | 2 | Roulement YAR 206-2F | Ball bearing YAR 206-2F |
| 11 | 44040002 | 2 | Corps de palier | Bearing housing |
| 12 | 41010009 | 3 | Vis HM10 x 70/26 | HM10 x 70/26 screw |
| 13 | 41110003 | 3 | Rondelle M10N | M10N washer |
| 14 | 40910009 | 3 | Ecrou Nylstop M10 | Nylstop M10 nut |
| 15 | 24321018 | 1 | Plaque tournante support moteur | Turning engine support plate |
| 16 | avec rep. 1 | 1 | Ensemble blocage en rotation | Locking set for turning plate (with rep. 1) |
| 17 | 47350001 | 2 | Plot Paulstra 50x35 | Frame support |
| 18 | 41110002 | 2 | Rondelle W10 | W10 washer |
| 19 | 40910001 | 1 | Ecrou HM10 | HM10 nut |
| 20 | avec rep. 1 | 1 | Vis de blocage brancard | Hand barrow locking screw (with rep. 1) |
| 21 | avec rep. 1 | 1 | Brancard | Hand barrow (with rep. 1) |
| 22 | 24321006 | 1 | Boîtier de transmission complet | Complete transmission casing |
| 23 | 47350001 | 4 | Silent bloc support moteur | Engine support silent bloc |

RACCORD RAPIDE A BILLES COMPLET AVEC CHAPE REF. 1434 2002

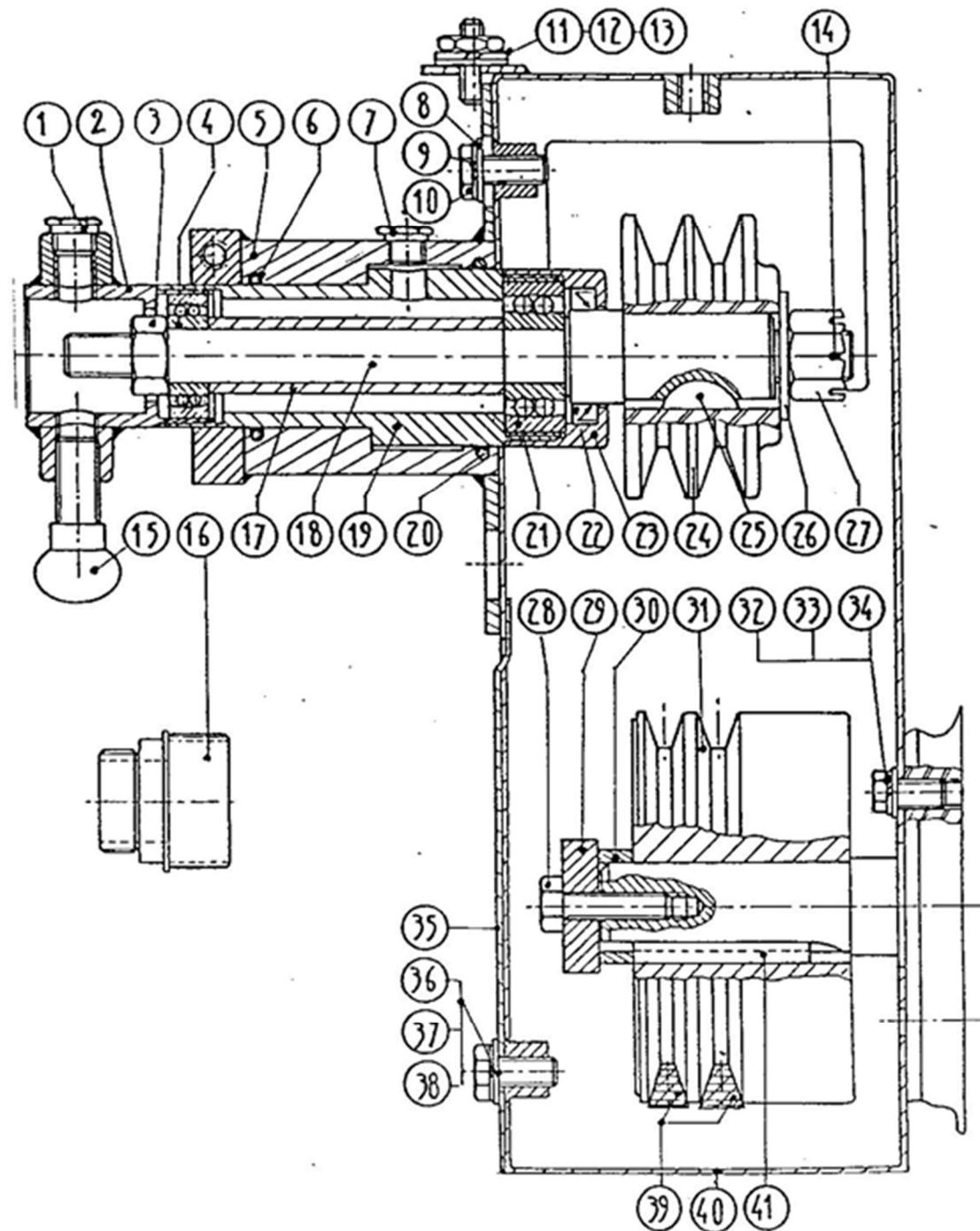
COMPLETE BALL QUICK COUPLING REF. 14342002



| N° rep. | Réf | Qté | Désignation | Description |
|---------|----------|-----|---------------------------------|---------------------------------|
| 1 | 31910017 | 1 | Tenon | Male mobile axis |
| 2 | 31210159 | 1 | Bouchon guide de roulement | Ball bearing guide plug |
| 3 | 31210107 | 1 | Ecrou de 10 taraudé 12 | Nut |
| 4 | 44010011 | 1 | Roulement à billes 6201 2Rs | Ball bearing 6201 2Rs |
| 5 | 31210160 | 1 | Entretoise | Distance sleeve |
| 6 | 44010011 | 1 | Roulements à billes 6201 2Rs | Ball bearing 6201 2Rs |
| 7 | 34210002 | 1 | Ressort de compression | Compression spring |
| 8 | 31210161 | 1 | Poignée moletée | Knurled handle |
| 9 | 44010003 | 4 | Billes diam. 6.35 | Ball Ø 6.35 |
| 10 | 41802006 | 1 | Circlips extérieur diam. 40 | Outer circlips Ø 40 |
| 11 | 31210162 | 1 | Intermédiaire support de billes | Balls support intermediate |
| 12 | 24342003 | 1 | Partie mâle côté outil | Tool side male part |
| 13 | 31210006 | 1 | Chape | Female driving piece |
| 14 | 39910003 | 1 | Clé pour plat de 35 | Single end wrench for nut of 35 |

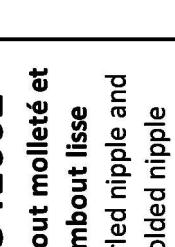
TRANSMISSION PAR EMBRAYAGE CENTRIFUGAL

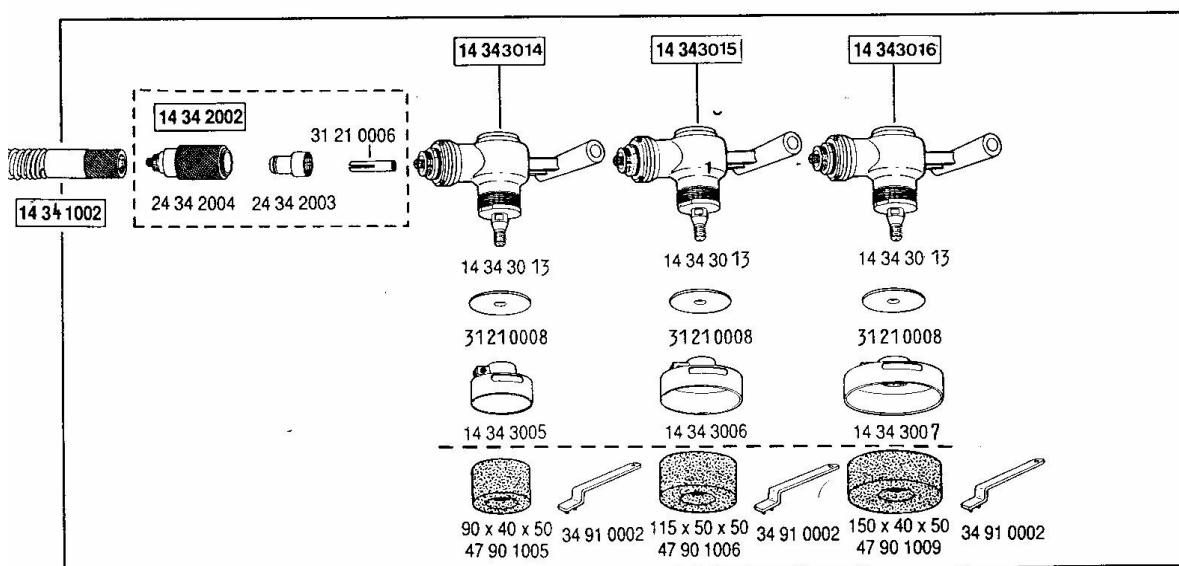
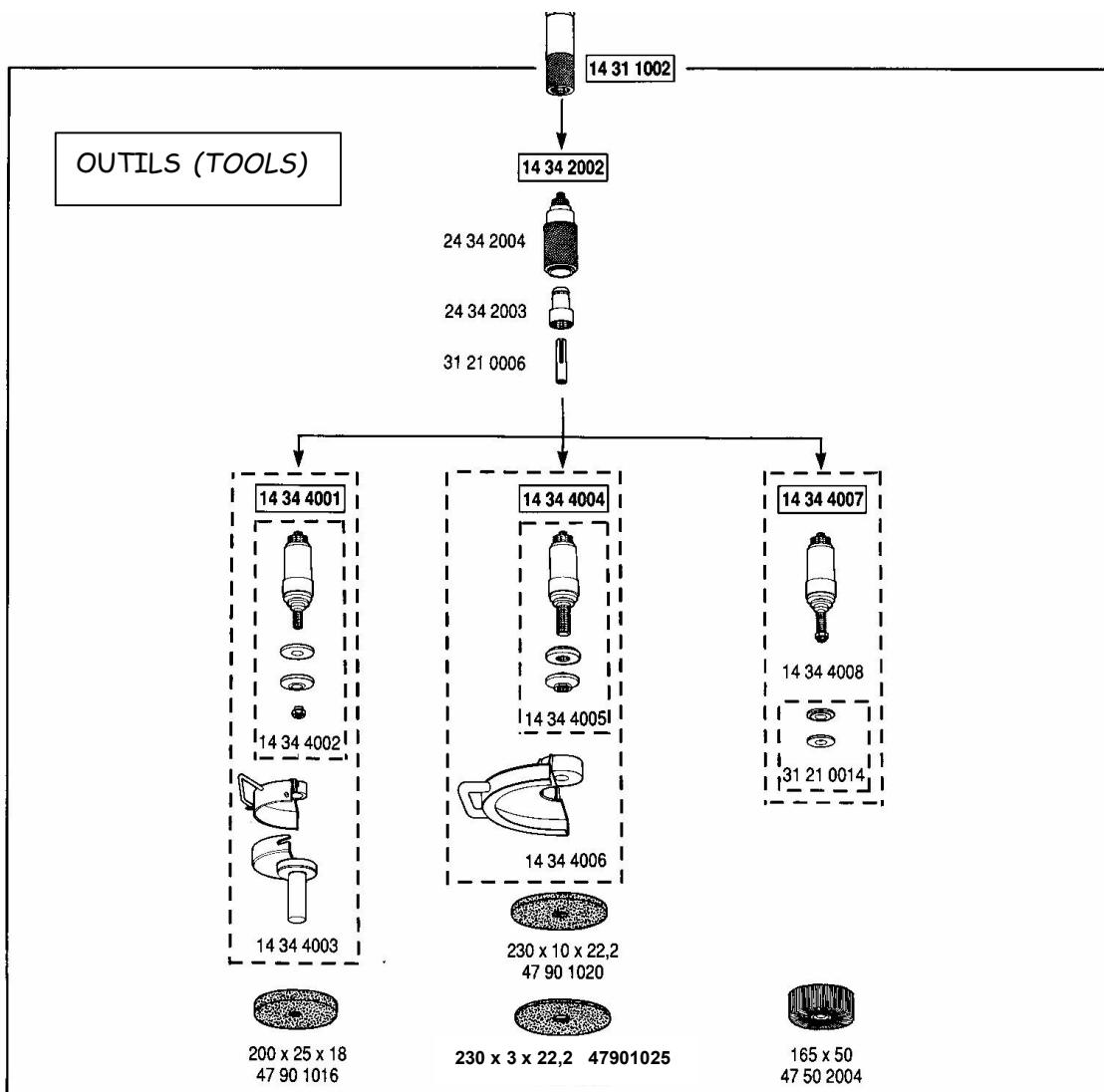
TRANSMISSION BY CENTRIFUGAL CLUTCH

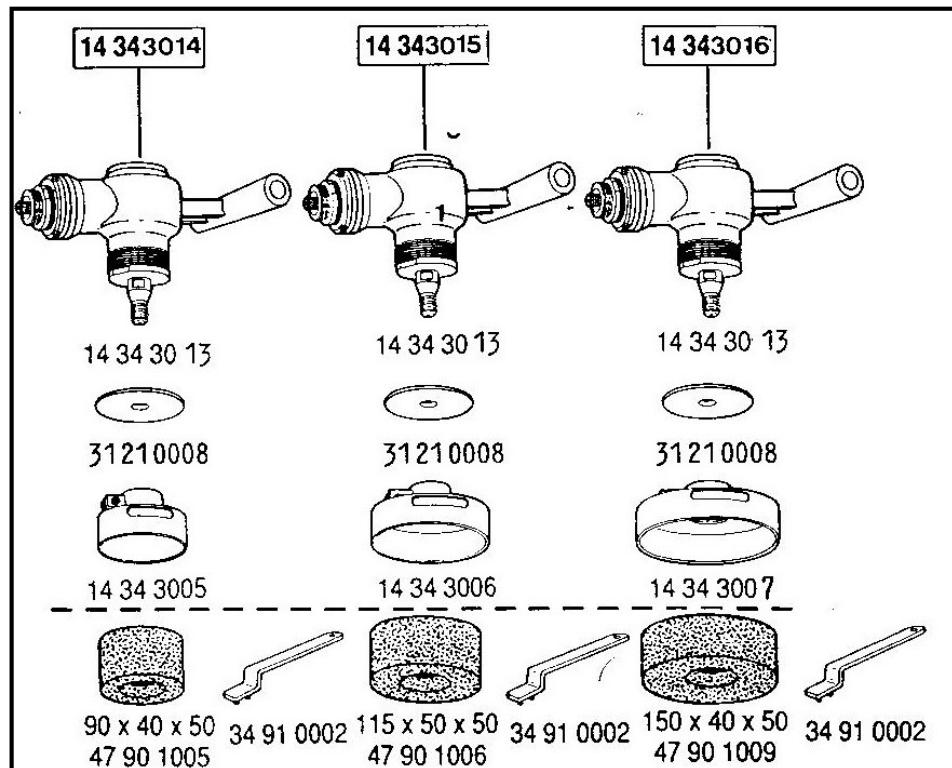


TRANSMISSION PAR EMBRAYAGE CENTRIFUGE
TRANSMISSION BY CENTRIFUGAL CLUTCH

| Rep. | Réf | Qté | Désignation | Description |
|-------------|-----------------|------------|---|---|
| 1 | 45010002 | 1 | Graisseur Técalémít M12 | Técalémít lubricator M12 |
| 2 | 31910004 | 1 | Support de gaine | Sheath support |
| *3 | 40912002 | 1 | Ecrou HM 12 | HM 12 nut |
| *4 | 44010017 | 1 | Roulement 1202 | 1202 ball bearing |
| 5 | 35910003 | 1 | Couvercle porte flexible | Flexible shaft holding cover |
| 6 | 44202005 | 1 | Joint SIMRIT diam. intérieur 40x3 | SIMRIT joint inner Ø 40x3 |
| 7 | 45010001 | 1 | Graisseur Técalémít M10 | Técalémít lubricator M10 |
| 8 | 41108001 | 4 | Rondelle M 8 N | M 8 N washer |
| 9 | 41108004 | 4 | Rondelle Grower W8 | Grower W8 washer |
| 10 | 41008002 | 4 | Vis HM8 x 20 | HM8 x 20 screw |
| 11 | 41108001 | 1 | Rondelle M 8 N | M 8 N washer |
| 12 | 41108004 | 1 | Rondelle Grower W8 | Grower W8 washer |
| 13 | 40908003 | 1 | Ecrou HM8 | HM8 nut |
| *14 | 41303001 | 1 | Goupille V 3x32 fendue | V 3x32 cotter pin |
| 15 | 31910005 | 1 | Vis violon M12x30 | Flap screw |
| *17 | 31210003 | 1 | Entretoise | Distance sleeve |
| *18 | 31110007 | 1 | Axe de poupee | Transmission head axis |
| *19 | 31210004 | 1 | Corps de poupee | Transmission head housing |
| 20 | 44202006 | 1 | Joint SIMRIT Ø intérieur 50x3 | SIMRIT joint inner Ø 50x3 |
| *21 | 44010016 | 1 | Roulement 2302 | 2302 ball bearing |
| *22 | 44202001 | 1 | Joint à lèvres Ø int. 26, ext. 37, ép. 7 | Lip seal diam.26x37, thickness 7 |
| *23 | 31210005 | 1 | Bouchon côté poulie | Pulley side cap |
| 24 | 31230001 | 1 | Poulie menée double gorge 8x13 | Double driven pulley 8x13 |
| *25 | 41403001 | 1 | Clavette disque 22x9x6 | Woodruff key 22x9x6 |
| *26 | 41114001 | 1 | Rondelle plate M 14 N | M 14 N washer |
| *27 | 40914002 | 1 | Ecrou à créneaux HK14 | HK14 castle nut |
| 28 | 41099007 | 1 | Vis H 7/16" 20 UNF Long. 1 1/4" | Screw H 7/16" 20 UNF - 1" 1/4 length |
| 29 | 31210051 | 1 | Rondelle. 38x5 de bout d'arbre | Shaft end 38 x 5 washer |
| 30 | 31210003 | 1 | Entretoise pour embrayage centrifuge | Centrifugal clutch distance sleeve |
| 31 | 45201003 | 1 | Embrayage centrifuge | Centrifugal clutch |
| 32 | 41099001 | 4 | Vis H 5/16" 24 UNF Long. 3/4" | Screw H 5/16" 24 UNF - 3/4" length |
| 33 | 41108004 | 4 | Rondelle Grower W8 | Grower W8 washer |
| 34 | 41108001 | 4 | Rondelle M8N | M8N washer |
| 35 | | 1 | Couvercle (livré avec le carter rep 40) | Cover (supplied with the carter rep 40) |
| 36 | 41008002 | 2 | Vis HM 8x20 | HM 8x20 screw |
| 37 | 41108004 | 2 | Rondelle Grower W8 | Grower W8 washer |
| 38 | 41108001 | 2 | Rondelle M 8 N | M 8 N washer |
| 39 | 44801001 | 2 | Courroie trapézoïdale 8x13x570 | V-belt 8x13 x570 |
| 40 | 34910044 | 1 | Carter de boîtier avec couvercle | Casing guard with cover |
| 41 | 41401016 | 1 | Clavette 6.35 x 6.35 | Key 6.35x6.35 for centrifugal clutch |
| | OPTION | | | OPTION |
| 16 | 31210074 | 1 | Bouchon pour adaptation des flexibles à 2 embouts moletés et des raccords rapides. | Special cap for adapting 2 knurled nipples, flexible shaft and quick couplings |
| | 24321003 | 1 | Poupée de transmission sans poulie comprenant les pièces rep. 3-4-14-17- 18-19-21-22-23-25-26-27 | Transmission head without pulley including parts rep. 3-4-14-17-18-19- 21-22-23-25-26-27 |

| | | | |
|---|---|--|---|
| LONGUEUR (Length) 4,5M | FLEXIBLE ISOLE COMPLET COMPLETE INSULATED FLEXIBLE SHAFT | TRANSMISSION FLEXIBLE + EMBOUTS TRANSMISSION FLEXIBLE SHAFT + NIPPLES | 24341002  14341002 1 embout molleté et 1 embout lisse 1 knurled nipple and 1 folded nipple |
| FLEXIBLES et TRANSMISSIONS de FLEXIBLES POUR GROUPES de MEULAGE FLEXIBLE SHAFTS and TRANSMISSIONS for GRINDING UNITS | | | |

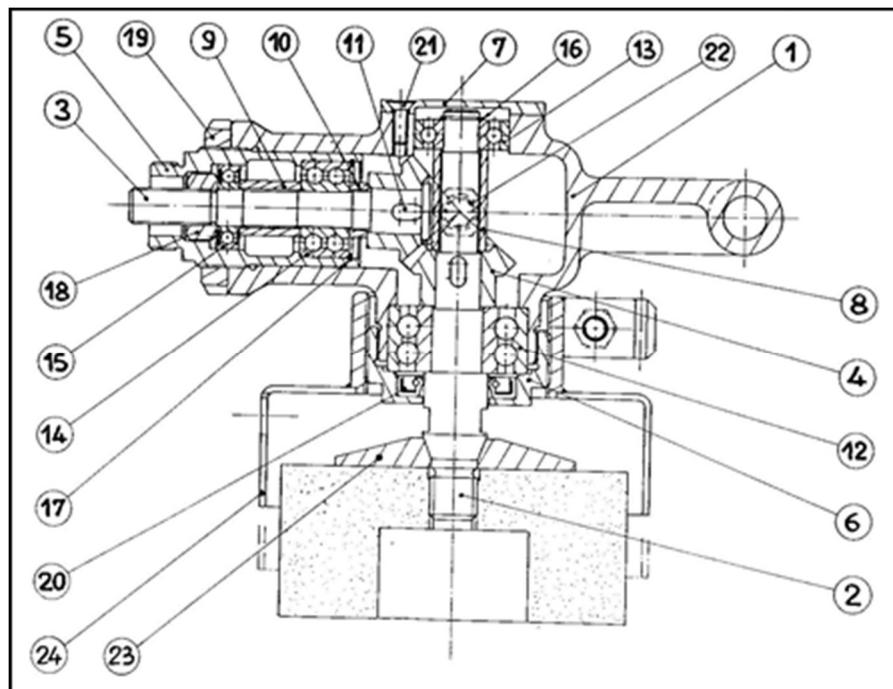




**TETE LAPIDAIRE COMPLETE
POUR MEULES**

**COMPLETE ANGLE HEAD FOR
WHEELS**

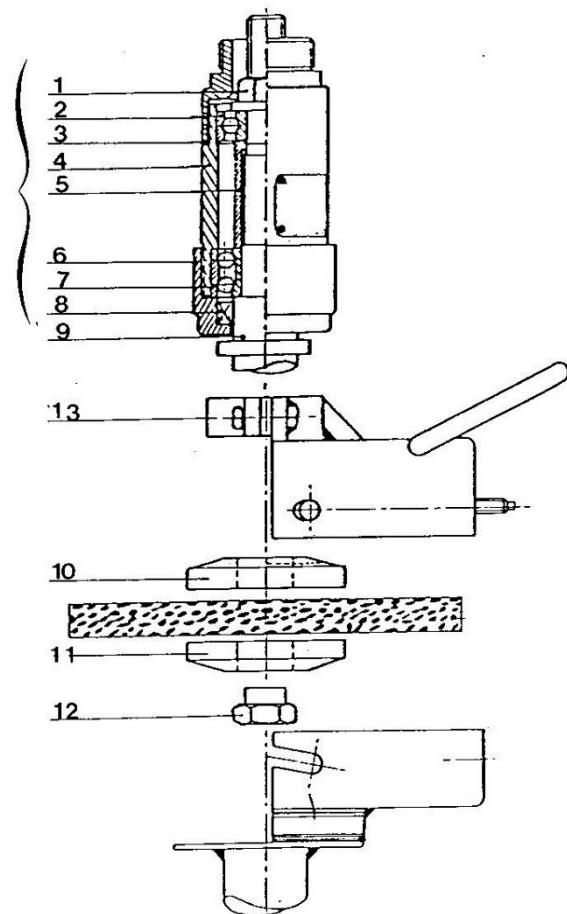
| | | | |
|----|-----------------|--|---------------------------------------|
| | 14343014 | Diamètre 90x40x50 comprenant : | 90x40x50 Diameter including : |
| 23 | 14343013 | 1 Tête lapidaire seule | Angle head |
| | 31210008 | 1 Plateau porte meule diamètre 80 | Grinding wheel support plate Ø 80 |
| 24 | 14343005 | 1 Protecteur vissé pour meule de 90 | Screwed guard for 90 grinding wheel |
| | 34910002 | 1 Clé à 2 plots pour démontage de la meule | Grinding wheel dismounting wrench |
| | 14343015 | Diamètre 115x50x50 comprenant : | 115x50x50 Diameter including : |
| 23 | 14343013 | 1 Tête lapidaire seule | Angle head |
| | 31210008 | 1 Plateau porte meule diamètre 80 | Grinding wheel support plate Ø 80 |
| 24 | 14343006 | 1 Protecteur vissé pour meule de 115 | Screwed guard for 115 grinding wheel |
| | 34910002 | 1 Clé à 2 plots pour démontage de la meule | Grinding wheel dismounting wrench |
| | 14343016 | Diamètre 150x40x50 comprenant : | 150x40x50 Diameter including : |
| 23 | 14343013 | 1 Tête lapidaire seule | Angle head |
| | 31210008 | 1 Plateau porte meule diamètre 80 | Grinding wheel support plate Ø 80 |
| 24 | 14343007 | 1 Protecteur vissé pour meule de 150 | Screwed guard for 150 grinding wheel |
| | 34910002 | 1 Clé à 2 plots pour démontage de la meule | Grinding wheel dismounting wrench |



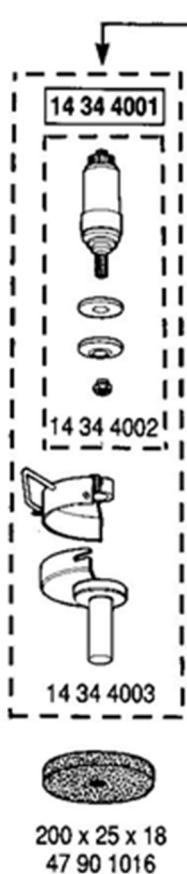
| rep. | Réf; | Qté | Désignation | Description |
|-----------------|----------|-----|--|--|
| 1 | | 1 | Boîtier | Housing |
| 2 | 31110059 | 1 | Axe côté meule | Grinding wheel side shaft |
| 3 | 31110060 | 1 | Axe côté flexible | Flexible side shaft |
| 4 | 31210097 | 2 | Pignon conique | Cone shaped pinion |
| 5 | 31210098 | 1 | Fourreau | Trunk |
| 6 | 31210099 | 1 | Bouchon inférieur fileté | Grind side threaded plug |
| 7 | 31110061 | 1 | Bouchon supérieur | Superior cover |
| 8 | 31210100 | 1 | Entretoise | Distance sleeve |
| 9 | 31210101 | 1 | Entretoise | Distance sleeve |
| 10 | 31210102 | 1 | Entretoise | Distance sleeve |
| 11 | 41401001 | 2 | Clavette 5x5x10 | Key 5x5x10 |
| 12 | 44010013 | 1 | Roulement 3303 | Ball Bearing 3303 |
| 13 | 44010031 | 1 | Roulement 6201 SKF | Ball Bearing 6201 SKF |
| 14 | 44010014 | 1 | Roulement 3201 | Ball Bearing 3201 |
| 15 | 44010012 | 1 | Roulement 6001 1rs | Ball Bearing 6001 1rs |
| 16 | 41802002 | 1 | Circlips extérieur Ø 12 | Outer circlips Ø 12 |
| 17 | 41801003 | 1 | Circlips intérieur Ø 32 | Inner circlips Ø 32 |
| 18 | 40912002 | 1 | Ecrou HM12 | HM12 nut |
| 19 | 40940001 | 1 | Ecrou "SKF" KM8 | "SKF" KM8 nut |
| 20 | 44202004 | 1 | Joint à lèvre | Gasket |
| 21 | 41005004 | 3 | Vis F/90 M5 x 14 | F/90 M5 x 14 screw |
| 22 | 45010001 | 1 | Graisseur M10 x 1,5 | Grease fitting M10 x 1,5 |
| 24343001 | | | Kit de maintenance comprenant : rep .2.3.4.11.12.13.14.15.20.22 | Maintenance kit including : rep. 2.3.4.11.12.13.14.15.20.22 |

Pièces communes aux 2
poupées pour meules plates

Common pieces to the 2 headstock
for flat grinding wheels



| N° rep. | Réf | Qté | Désignation | Description |
|---------|-----------------|----------|----------------------------|----------------------------|
| | 14344002 | | POUPÉE POIGNÉE | HAND HELD HEADSTOCK |
| 1 | 31210107 | 1 | Ecrou à embase | Nut with base |
| 2 | 44010011 | 1 | Roulement 6201 2Rs | Ball bearing n° 6201 2Rs |
| 3 | 31210119 | 1 | Bouchon | Plug |
| 4 | 31210121 | 1 | Corps | Body |
| 5 | 31210120 | 1 | Entretoise | Distance sleave |
| 6 | 31210118 | 1 | Ecrou de poupée | Nut |
| 7 | 44010022 | 1 | Roulement 2202 2Rs | Ball bearing n° 6202 2Rs |
| 8 | 44202003 | 1 | Joint | Gasket |
| 9 | 31110010 | 1 | Axe de poupée | Axis |
| 10 | 31210009 | 1 | Flasque d'entraînement | Internal flange |
| 11 | 31210010 | 1 | Flasque de serrage | Tightening flange |
| 12 | 31210011 | 1 | Ecrou de serrage | Tightening nut |
| 13 | 14344003 | 1 | ENSEMBLE PROTECTEUR | PROTECTION GUARD |


ENSEMBLE TETE DROITE REF. 14344001
STRAIGHT HEAD SET REF. 14344001

Compris (including) :

14344002 Poupée poignée complète avec flasques et écrou
(a complete hand held headstock with flanges and nut)

14344003 Ensemble protecteur
(a protection guard set)

Pour meule plate diamètre 200 x 25 – alésage 18
(for flat grinding wheel diameter. 200 x 25 – boring 18)

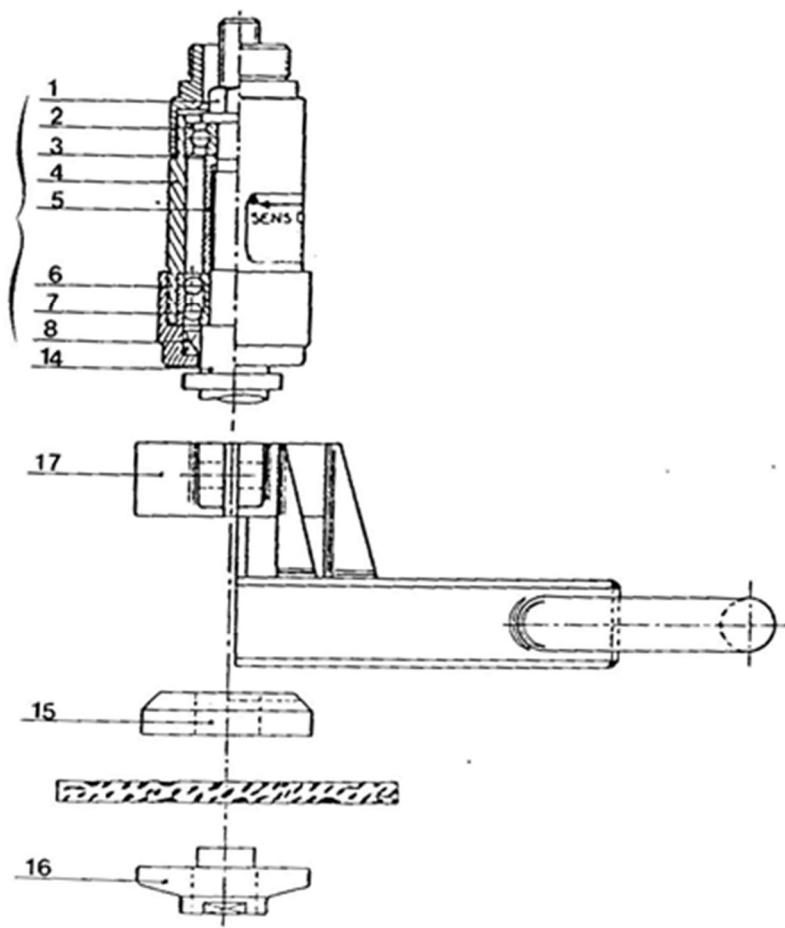


La meule usée est un déchet suivant code 12 01 21

(Worn grinding wheel is a waste according to the code 12 01 21)

Pièces communes aux 2
poupées pour meules droites

Common pieces to the 2 headstock
for flat grinding wheels



| N° rep. | Réf | Qté | Désignation | Description |
|---------|-----------------|-----|-------------------------------|----------------------------|
| | 14344005 | 1 | POUPÉE POIGNÉE | HAND HELD HEADSTOCK |
| 1 | 31210107 | 1 | Ecrou à embase | Nut with base |
| 2 | 44010011 | 1 | Roulement 6201 2Rs | Ball bearing n° 6201 2Rs |
| 3 | 31210119 | 1 | Bouchon | Plug |
| 4 | 31210121 | 1 | Corps | Body |
| 5 | 31210120 | 1 | Entretoise | Distance sleeve |
| 6 | 31210118 | 1 | Ecrou de poupee | Nut |
| 7 | 44010022 | 1 | Roulement 2202 2Rs | Ball bearing n° 6202 2Rs |
| 8 | 44202003 | 1 | Joint | Gasket |
| 14 | 31110066 | 1 | Axe de poupee | Axis |
| 15 | 31210012 | 1 | Flasque d'entraînement | Internal flange |
| 16 | 31210013 | 1 | Flasque de serrage avec écrou | Tightening flange with nut |
| 17 | 14344006 | 1 | ENSEMBLE PROTECTEUR | PROTECTION GUARD |

ENSEMBLE TETE DROITE REF. 14344004
STRAIGHT HEAD SET REF. 14344004

 Comprisant (*including*) :

14344005 Poupée poignée complète avec flasques
(a complete hand held headstock with flanges)

14344006 Ensemble protecteur
(a protection guard set)

Pour meule plate diamètre 230 x 10 – alésage 22.2
(for flat grinding wheel diameter. 230 x 10 – boring 22.2)

Pour meule plate diamètre 230 x 3 – alésage 22.2
(for flat grinding wheel diameter. 230 x 3,2 – boring 22.2)



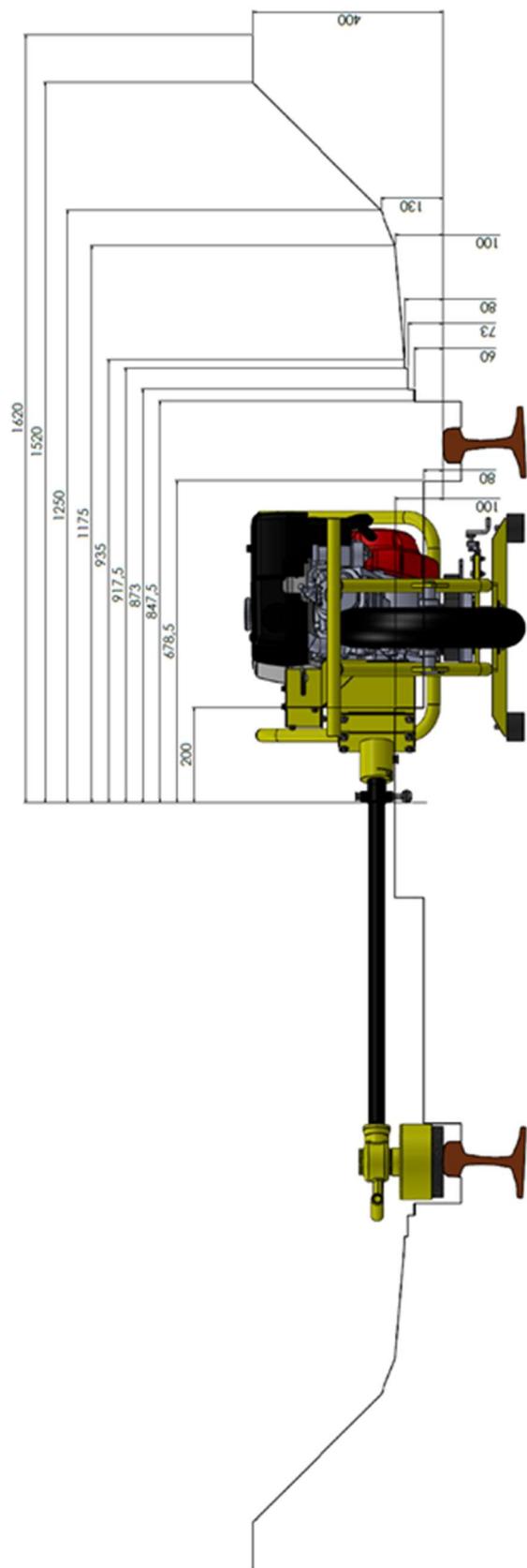
La meule usée est un déchet suivant code 12 01 21

(Worn grinding wheel is a waste according to the code 12 01 21)

OUTILLAGE FOURNI AVEC LA MACHINE*SET OF TOOLS DELIVERED WITH THE MACHINE*

| Réf | Qté | Désignation | Description |
|----------|-----|--|---------------------------------|
| 48401146 | 1 | Clé à bougie | Wrench for sparking-plug |
| 31110117 | 1 | Broche de démontage de la transmission | Transmission dismounting broach |
| 39910005 | 1 | Clé oxycoupée de 10 | 10 Flat Wrench |
| 39910007 | 1 | Clé oxycoupée de 13 | 13 Flat Wrench |
| 39910013 | 1 | Clé oxycoupée 22/24 | Flat Wrench 22/24 |

VIII - PLAN DE CONTROLE SUIVANT EN13977







**FICHE DE CONTROLE
CLIENT**

**CONTROL CARD
CUSTOMER'S COPY**

MEULEUSES A FLEXIBLE TYPE MFB

GRINDING UNIT WITH SHAFT MFB TYPE

14321013

| N° | Désignation des contrôles <i>Description of controls</i> | Contrôle <i>Checked by</i> |
|---|--|---|
| 1 | Articulation du brancard <i>Hand barrow articulation</i> | |
| 2 | Verrouillage de la plaque tournante support de moteur <i>Engine turnable support plate locking</i> | |
| 3 | Tension des courroies <i>Belts tension</i> | Fenêtre de contrôle <i>Control window</i> |
| 4 | Vitesse ralenti moteur | <i>Engine slow motion speed</i> |
| 5 | Boîtier de commande à distance: - raccordements électriques - essai poignée commande à distance - fonctionnement de l'interrupteur boîtier | Driving case : <i>electrical connections</i> <i>remote control handle test</i> <i>driving case switch</i> |
| 6 | Vitesse de l'arbre de sortie (4800 ± 150 tr/min) <i>Output shaft speed (4800 ± 150 rpm)</i> | |
| 7 | Aspect peinture - graissage - serrage vis et écrous <i>Paint, greasing aspect - screws and nuts tightening</i> | |
| 8 | Accessoires | <i>Accessories</i> |
| 9 | Notice d'utilisation REF 42143002 | <i>User's manual</i> |
| Date de fabrication <i>Date of manufacturing</i> : | | |
| Fait à Raismes le <i>Drawn up in Raismes, the</i> : | | |
| Nom <i>Name</i> : | | |
| Signature <i>Signature</i> : | | |

Références à rappeler en cas de réclamation
In case of complaint, please quote these references

| | |
|---------------|----------------------|
| N° de machine | <i>Machine nbr</i> : |
| Moteur Type | <i>Engine Type</i> : |
| Numéro | <i>Number</i> : |

**FICHE DE CONTROLE
CLIENT**

**CONTROL CARD
CUSTOMER'S COPY**

MEULEUSES A FLEXIBLE TYPE MFB

GRINDING UNIT WITH SHAFT MFB TYPE

Avec commande à distance

14321013

With a remote control switch

| N° | Désignation des contrôles <i>Description of controls</i> | Contrôle <i>Checked by</i> |
|---|--|---|
| 1 | Articulation du brancard <i>Hand barrow articulation</i> | |
| 2 | Verrouillage de la plaque tournante support de moteur <i>Engine turnable support plate locking</i> | |
| 3 | Tension des courroies <i>Belts tension</i> | Fenêtre de contrôle <i>Control window</i> |
| 4 | Vitesse ralenti moteur | <i>Engine slow motion speed</i> |
| 5 | Boîtier de commande à distance: - raccordements électriques - essai poignée commande à distance - fonctionnement de l'interrupteur boîtier | Driving case : <i>electrical connections</i> <i>remote control handle test</i> <i>driving case switch</i> |
| 6 | Vitesse de l'arbre de sortie (4800 ± 150 tr/min) <i>Output shaft speed (4800 ± 150 rpm)</i> | |
| 7 | Aspect peinture - graissage - serrage vis et écrous <i>Paint, greasing aspect - screws and nuts tightening</i> | |
| 8 | Accessoires | <i>Accessories</i> |
| 9 | Notice d'utilisation REF 42143002 | <i>User's manual</i> |
| Date de fabrication <i>Date of manufacturing</i> : | | |
| Fait à Raismes le <i>Drawn up in Raismes, the</i> : | | |
| Nom <i>Name</i> : | | |
| Signature <i>Signature</i> : | | |

Références à rappeler en cas de réclamation
In case of complaint, please quote these references

| | |
|---------------|----------------------|
| N° de machine | <i>Machine nbr</i> : |
| Moteur Type | <i>Engine Type</i> : |
| Numéro | <i>Number</i> : |



SAV / Commercial

Contacter votre représentant commercial / Contact your locol 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)

MEULEUSE BROUETTE A FLEXIBLE

WHEELBARROW GRINDING UNIT WITH SHAFT

TYPE MFB avec commande a distance

MFB Type with remote control switch

Moteur HONDA GXV 240

HONDA GXV 240 engine

Référence 14321013

Référence 14321013

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
Responsable division matériel et équipement

PANDROL

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