Made in Taiwan

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Art. 5117 – TESTER PER PERDITE DI PRESSIONE NEL CILINDRO – TESTEUR POUR LA PERTE DE PRESSION DANS LE CYLINDRE – CYLINDER LEAKAGE TESTER

MANUALE ISTRUZIONI - MODE D'EMPLOI - USER INSTRUCTIONS

RACCOMANDIAMO DI LEGGERE IL MANUALE DI ISTRUZIONI DEL MOTOCICLO E/O CHIEDERE CHIARIMENTI AL PROPRIO MECCANICO DI FIDUCIA

1. INTRODUZIONE E APPLICAZIONE

Questo tester è utile per una rapida ricerca di difetti o perdite delle valvole, dei pistoni, delle fasce elastiche e delle guarnizioni della testa. Il manometro indica la perdita sia in percentuale che in psi. Mantenere l'attrezzo pulito e in buono stato per una sicura prestazione e NON UTILIZZARLO se danneggiato.

2. AVVERTENZE

Mettere il motore in folle e assicurarsi che il veicolo sia ben stabile, dovendo metterlo in moto per utilizzare lo strumento.
IMPORTANTE: girare completamente la manopola sotto il manometro in senso antiorario prima di collegare l'aria compressa. Un eccesso di pressione può danneggiare il misuratore. La costante immissione di aria compressa permette di individuare i difetti anche attraverso l'ascolto delle perdite.

3. ISTRUZIONI PER L'USO

3.1 *CONNETTERE IL SISTEMA*

1. Riscaldare il motore fino a raggiungere la temperatura di regime.
2. Rimuovere le candele, l'astina dell'olio, il tappo del radiatore, il filtro dell'aria del carburatore, o, con motore a iniezione, rimuovere il tubo del depressore.
3. Posizionare il pistone n.1 al punto morto superiore con entrambe le valvole chiuse. Per posizionare correttamente il pistone utilizzare un calibro di posizionamento o rimuovere il coperchio dei bilancieri e delle camme per controllare che le valvole siano chiuse.
4. Girare completamente la manopola sotto il manometro in senso antiorario. Collegare l'aria compressa al regolatore di pressione e girare la manopola di regolazione in senso orario fino a quando sul manometro si legge 100 psi (perdita uguale a 0%) – Evitare un eccesso di pressione per non danneggiare lo strumento.
5. Avvitare il connettore nel foro della candela e collegarlo al tester. Il manometro indicherà se ci sono perdite visualizzando i psi mancanti o in percentuale (es. se si legge 90 psi la perdita sarà pari al 10%).
6. Ripetere la prova sugli altri cilindri e confrontando le misurazioni, determinare quale cilindro è difettoso. Se necessario, ricontrollare il cilindro che mostra le maggiori perdite.

3.2 *UBICAZIONE DEI PUNTI DI ASCOLTO*

1.	Tubetto dell'astina dell'olio	fasce elastiche o pareti del cilindro danneggiati o usurati.
2.	Radiatore	pareti del cilindro incrinate o perdite nella guarnizione di testa.
3.	Canna del cilindro	perdite nella guarnizione di testa.
4.	Marmitta	perdite nella valvola di scarico.
5.	Depressore	perdite nella valvola di carico.
6.	Corpo sfarfallato	perdite della valvola di aspirazione

Controllando i punti di ascolto si può determinare con certezza il punto di perdita.

3.3 *SUGGERIMENTI*

Se si riscontra una perdita verificare : che il pistone sia al punto morto superiore e che le valvole siano chiuse. Se si riscontra nuovamente la perdita è possibile che le fasce elastiche siano danneggiate o non messe nella corretta posizione, che la canna del cilindro sia rovinata e le valvole bruciate o incrostate. Se questi inconvenienti si riscontrano con un veicolo con basso chilometraggio può essere per scarsità di olio e di qualità non adatta; Ripristinare il livello, riavviare il motore e rifare il test.

NOTA: C'è sempre qualche perdita attraverso gli anelli dei pistoni e togliendo l'astina dell'olio dal tubetto. Ascoltare il suono; con suono basso significa che la perdita è notevole, con un leggero sibilo la perdita è accettabile, evitando così di intervenire meccanicamente sul motore.

NOUS RECOMMANDONS DE LIRE LE "MODE D'EMPLOI" DE LA MOTO ET/OU DE DEMANDER DES CLARIFICATIONS À VOTRE MÉCANICIEN DE CONFIANCE

1. INTRODUCTION ET APPLICATION

Ce testeur est utile pour une recherche rapide des défauts ou des pertes des soupapes, des pistons, des segments de piston et des joints de la tête . La jauge indique la perte en pourcentage aussi qu'en psi. Maintenir l'outil propres et en bon état pour une meilleure performance et NE PAS L'UTILISER si endommagé.

2. AVVERTISSEMENT

Mettre le moteur au point mort et s'assurer que le véhicule soit très stable pour le mettre en marche afin d'utiliser l'outil.
IMPORTANT: tourner complètement dans le sens contraire des aiguilles d'une montre le bouton au dessous du manomètre avant de connecter l'air comprimé. Un excès de pression peut endommager le compteur . La constante injection d'air comprimé permis également d'identifier avec précision les défauts à l'écoute de la perte.

3. INSTRUCTIONS

3.1 *CONNETTERE LE SYSTEME*

1. Chauffer le moteur jusqu'à ce qu'il atteigne la température de régime
2. Enlever les bougies, la tige de l'huile, le bouchon du radiateur, le filtre à air du carburateur, ou, avec un moteur à injection, enlever le tube de l'abaisseur.
3. Placer le piston no.1 au point mort haut, avec les deux soupapes fermées. Pour placer correctement le piston, utiliser un calibre de positionnement ou retirer le couvercle des bras de cames pour vérifier que les soupapes sont fermées.
4. Tourner complètement dans le sens contraire des aiguilles d'une montre le bouton au dessous du manomètre. Connecter l'air comprimé au régulateur de pression et tourner le bouton vers la droite jusqu'à sur la jauge se lit 100 psi (perte égal au 0%).- Eviter un excès de pression pour ne pas endommager l'outil.
5. Visser le connecteur dans le trou de la bougie et le connecter au testeur. La perte sera visualisée sur la jauge en psi manquants et en pourcentage. (exemple : si on lit 90 psi, la perte sera égale au 10%).
6. Répéter le test sur les autres cylindres et comparer les mesures pour déterminer quel est le cylindre défectueux. Si nécessaire, revérifier le cylindre qui montre les pertes les plus importantes.

3.2 *LOCALISATION DE POINTS D'ECOUTE*

1. Tube de la tige de l'huile	segments ou parois du cylindre endommagée ou usée
2. Radiateur	parois du cylindre fissuré ou pertes dans le joint de tête.
3. Chemise du cylindre	pertes dans le joint de tête.
4. Pot d'échappement	pertes dans la soupape de décharge
5. Abaisseur	pertes dans la soupape de charge
6. Corps papillonné	perte dans la soupape d'aspiration

En contrôlant les points d'écoute, on peut déterminer en certitude le point de la perte.

3.3 *SUGGESTIONS*

Si on a une perte, vérifier que le piston soit au point mort haut et que les soupapes sont fermées. S'il y a encore une perte, c'est possible que les segments de piston soient endommagés ou pas placés dans la correcte position, que la chemise du cylindre soit ruinée et les soupapes brulées ou incrustées.
Si ces inconvénients se relèvent sur un véhicule à faible kilométrage, peut être pour un manque d'huile, ou de qualité pas adapte ; Rétablir le niveau, mettre le moteur en marche et répéter le test.

NOTE : Il y a toujours quelque perte dans les anneaux de pistons et en enlevant la tige de l'huile du tube. Ecouter le son ; plus faible est le son de la perte, plus grand est la perte. S'il y a un petit sifflement, la perte est acceptable et on peut éviter que le mécanicien intervient mécaniquement sur le moteur.

WE RECOMMEND TO READ THE USER INSTRUCTIONS OF THE MOTORCYCLE AND/OR ASK CLARIFICATIONS TO YOUR CONFIDENT MECHANIC

1. INTRODUCTION & APPLICATION

This tool is useful to test for a quickly diagnoses of failed or leaking valves, pistons, rings and head gaskets. A large gauge indicates percentage of leaking rather than psi. Maintain the equipment in good and clean condition for a safest performance and DO NOT use if damaged.

2. SAFETY INSTRUCTIONS

Select neutral and be sure that the vehicle is adequately supported for using the tool while engine running.
WARNING: Turn regulator knob below the gauge fully anti-clockwise before connecting to compressed air. Excess pressure will damage the gauge. The constant supply of compressed air allows faults to be pinpointed by listening for the source of leakage.

3. USER INSTRUCTIONS

3.1 *TO CONNECT THE SYSTEM*

1. Run the engine until it reaches operating temperature
2. Remove spark plugs, oil dipstick, radiator cap, air filter from carburettor or, if fuel injected, remove the hose from the throttle body.
3. Place No.1 piston at TDC on the compression stroke so that both inlet exhaust valves are closed. For positioning the piston correctly use a piston position gauge or remove the cam/rocker cover so that closed valves can be confirmed.
4. Turn the regulator knob fully anti-clockwise. Connect the compressed air to the regulator. Turn the regulator knob clockwise until the gauge reads 100 psi (loss is zero) – Avoid an excess of pressure for not damaging the tool.
5. Screw the cylinder hose into spark plug hole and then connect to the tester. The amount of leakage will show on the gauge as missing psi or percentage loss (ex. If you read 90 psi the loss is 10%).
6. Test the other cylinders and compare the leakage figures to determine which cylinder is faulty. If necessary, retest the cylinder showing high leakage.

3.2 *LOCATION OF LISTENING POINT*

1. Oil Dipstick Tube	for leakage from damaged or worn rings and/or cylinder wall
2. Radiator Filler	for cylinder wall cracks or head gasket leakage
3. Adjacent Cylinder	for head gasket leakage
4. Tail Pipe	for exhaust valve leakage
5. Carburetion Air inlet	for Rake valve leakage
6. Fuel in Throttle Body	for intake valve leakage

Check the listening points to determine the right point of leakage.

3.3 *HELPFUL SUGGESTION*

If there is a leakage, check that: the piston is at TDC on the compression stroke and the valves are closed. If there is a loss again, it could happen that rings are damaged or not placed in the right position, cylinder pipe is ruined and valves burnt or encrusted.
If these problems are found on a vehicle with low mileage, it could be for shortage of oil or for not quality oil; Replace the level, restart the engine and test again.

NOTE: there is always some leakage among the piston rings. As a result you will always hear some leakage when listening to the dipstick tube. If the heard sound has a low tone, the leakage is remarkable. If there is a soft hissing sound, the leakage is acceptable, avoiding engine's mechanical intervention.

3.4.COMPRESSION FAULTS

Low compression reading on some

↓

Use oil in cylinder to see if rings are worn.

↓

If compression increases,rings and/or cylinder wall are worn.

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If compression does not rise,do a cylinder leakage test to determine source of

High relative compression readings and relatively equal cylinder readings.

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But,if excessive exhaust emissions.lack of power,poor performace,or poor fuel consumption.

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Do a cylinfer leakage test to determine source of problem.

Lower relative compression readings.One or more cylinders lower

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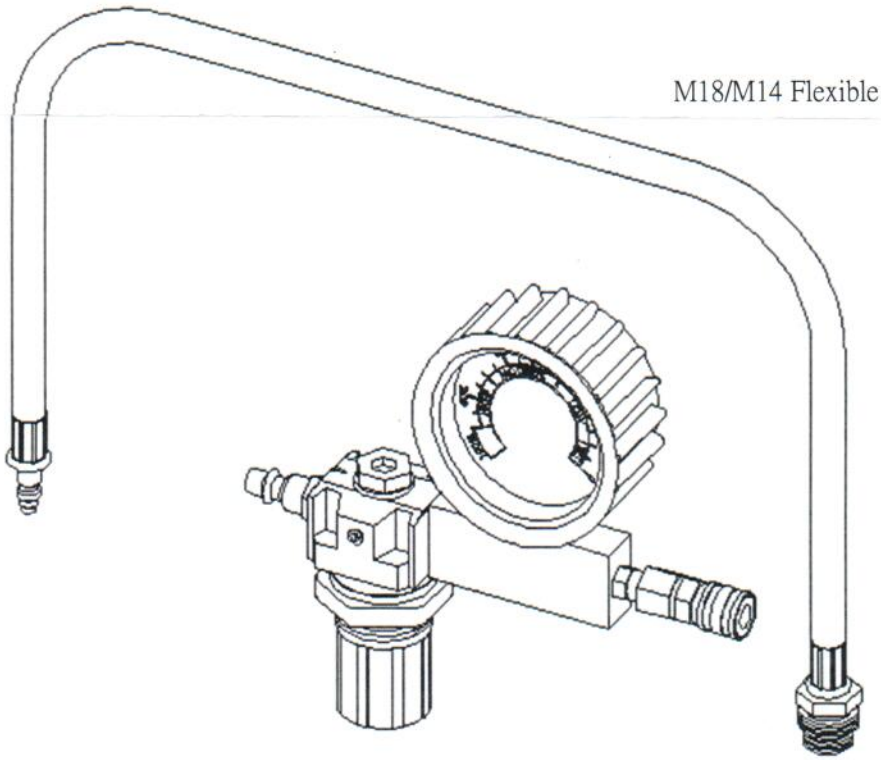
Do a cylinder leakage test to determine source of problem.

4. PART AVAILABILITY



M18/M14 Flexible Adaptor

Gauge and Regulator Assembly- only available as part of Tester

NOTE: It is policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this equipment.

WARRANTY: Guarantee is 12 months from purchase date,proof of which will be required for any claim.

CYLINDER LEAKAGE TESTER

1. SAFETY INSTRUCTIONS

Ensure that Health & Safety, local authority and general workshop practice regulations are strictly adhered to when using tools.
Maintain the equipment in good and clean condition for best and safest performance. DO NOT use if damaged.
If required, ensure that the vehicle to be worked on is adequately supported with axle stands, ramps and chocks.
WARNING: Select neutral (or 'park' if automatic transmission) and keep hands clear of the engine as engine rotation may occur when using this tool. The ignition MUST BE turned off. .
WARNING: Turn regulator knob fully anti-clockwise before connecting to compressed air.
Excess pressure will damage the gauge and will invalidate the warranty.
Wear approved eye protection. A full range of personal safety equipment is available from your dealer.
Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
Account for all tools and parts being used and do not leave them in or near the engine.
IMPORTANT: Refer to the vehicle manufacturer's service instructions, or proprietory manual, to establish the current procedure and data.
These instructions are provided as a guide only.

2. INTRODUCTION & APPLICATION

INTRODUCTION: It is used to test for cylinder leakage where poor engine performance to be due to cylinder pressure loss. The tester allows workshop air to be directed into the cylinder and measures the percentage of loss. The constant supply of compressed also allows faults to be pin-pointed by listening for the source of leakage.
APPLICATION: For use on petrol engines with 18 or 14 spark plugs.

3. INSTRUCTIONS FOR USE

3.1. LOCATION OF LISTENING POINTS

1. Oil Dipstick Tube .. . . . . ·····for leakage from damaged or worn rings and/or cylinder wall.
2.Radiator Filler.....for cylinder wall cracks or head gasket leakage.
3. Adjacent Cylinder.....for head gasket leakage.
4.Tail Pipe .....for exhaust valve leakage.
5. Carburetion Air inlet . . . .for Rake valve leakage.
6. Fuel in Throttle Body . . . ·····.for intake valve leakage.

3.2. CONNECTING THE SYSTEM

1. Run the engine until it reaches operating temperature.
2. Remove spark plugs, oil dipstick, radiator cap, air filter from carburettor or, if fuel injected, remove air liter or hose from the throttle body.
3. Position No. 1 piston at TDC on the compression stroke so that both inlet and exhaust valves are dosed. Note: Always rotate the engine in the normal operating direction. To position the piston correctly use a piston position gauge and remove the cam/rocker cover so that dosed valves can be confirmed.
4. Turn the regulator knob fully anti-clockwise. Connect the compressed air, which must between 45 and 15Opsi, to the regulator. Turn the regulator knob clockwise until the gauge reads zero (at the end of the yellow 'Set' band).
5. Screw the cylinder hose into spark plug hole and then connect to the tester. The amount of leakage will show on the gauge as a percentage loss.
6. Test all other cylinders, each at me, and compare the leakage figures to determine which cylinders are faulty.
7.If necessary, retest the cylinder(s) showing high leakage. Check the listening points (see 3.1.) to determine the cause of the leakage.

3.3. HELPFUL SUGGESTIONS

1. If 100% or excessive leakage shows on gauge the cylinder may not be at me on the compression stroke. Check to ensure that the valves are closed. Always try to position piston at TDC for uniform results.
2. If rings are broken or cylinder walls are scored excessive leakage will be identified.
3.It is important that all cylinders have reasonably uniform readings (as in compression testing). Differences in excess of 15% indicate excessive leakage.
4. Large engines tend to leak more than small engines.
5. If leak is excessive on a vehicle with low mileage, piston rings may be stuck. Treat engine with quality tune-up oil for a period of time and then re-test before disassembling.
6. The lower the pitch of the leakage sound, the greater the leak.
7. To assist with listening use a length of clean hose, or a mechanic's stethoscope with the probe removed.
8. When making repeat tests on 100 same cylinder, variations in the piston position and engine temperature can cause gauge readings to differ by up to 10%.
9. If an engine has multiple faults (such as worn rings and burned valves), the tester may indicate only the most serious fault.

Note: There is always some leakage past the piston rings. As a result you will always hear some leakage when listening to the dipstick tube.