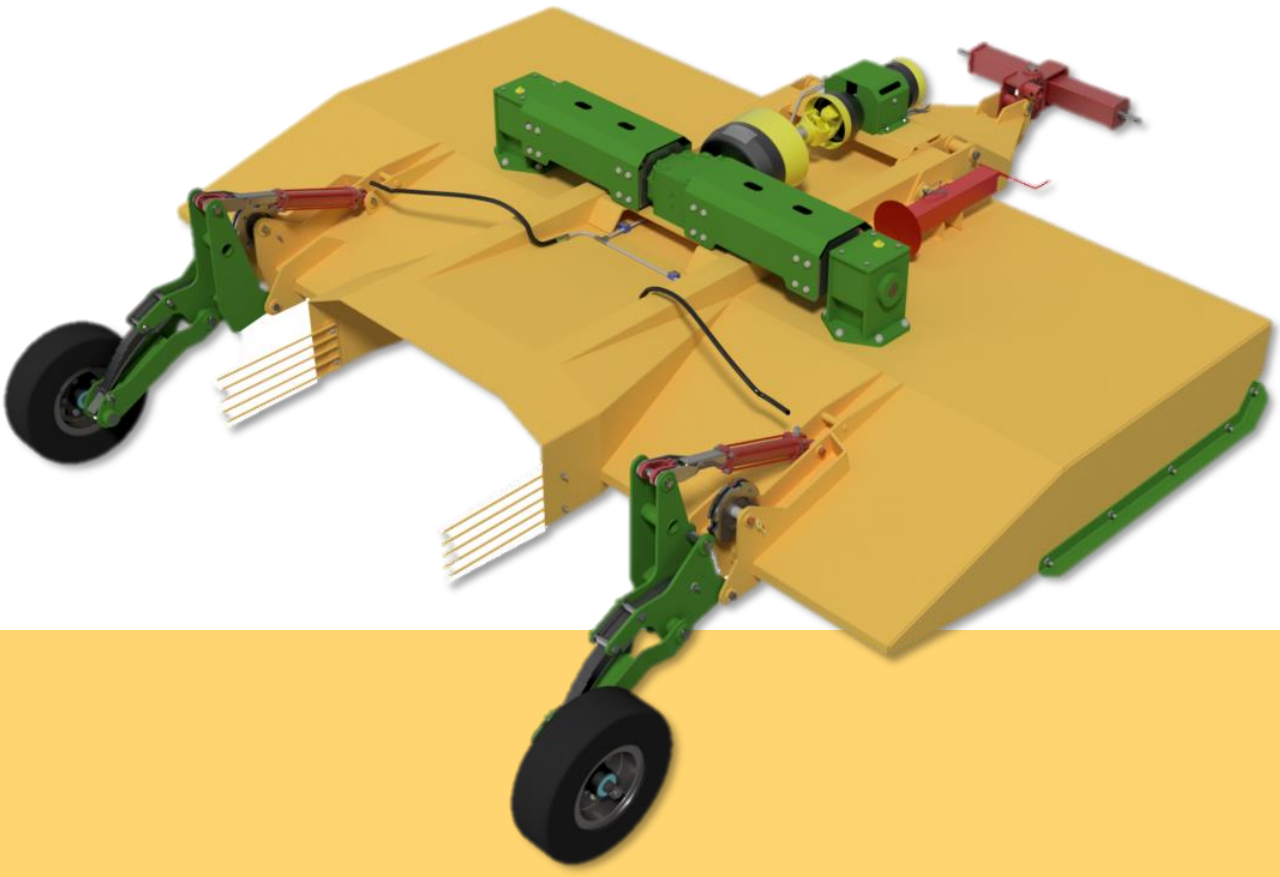
Est. 1985

FALCON®

OPERATORS MANUAL / OPERATEURSHANDLEIDING

Haymakers® / Hooimakers®

F60-350V
F60-350VT



CONTENTS		INHOUD

Authorised Dealer / Gemagtigde handelaar:
Date of Sale / Verkoopsdatum:
Implement:
Model No. / Model Nr.:
Serial No. / Reeks Nr.:

Part number	M8416	Onderdeelnommer
Version	2	Weergawe
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FOREWORD

We at Falcon commend and congratulate you on the purchase of your Falcon implement, which we consider to be the best of its type available.

However, we would like to remind you that your success and satisfaction with the product will be greatly improved by you familiarising yourself with the contents of this manual. It contains important information relevant to the responsible operation, maintenance and most importantly, safe use of the product.

Note that failure to observe or comply with the provisions of this manual may result in unsafe operating conditions as well as damage to products and property which shall not be covered under warranty.

Should this manual become misplaced, damaged or destroyed, further copies are available from your Falcon dealer. Alternatively, this document is available for download from our website: www.falconequipment.co.za

Symbols used in this document

VOORWOORD

Ons by Falcon wens jou geluk met die aankoop van jou Falcon-implement, wat ons as die beste beskikbare werktuig in sy soort beskou.

Ons herinner u egter graag daaraan dat u sukses en tevredenheid met die produk grootliks verbeter sal word as u met die inhoud van hierdie handleiding vertroud raak. Dit bevat belangrike inligting met betrekking tot die verantwoordelike gebruik, instandhouding en, die heel belangrikste, veilige gebruik van die produk.

Let asseblief op dat versuim om die bepalings van hierdie handleiding na te kom tot onveilige bedryfstoestande asook skade aan produkte en eiendom kan lei wat nie onder die waarborg gedek sal wees nie.

Indien hierdie handleiding dalk verloor, beskadig of vernietig sou word, is daar verdere kopieë by u Falcon-handelaar beskikbaar. Hierdie dokument kan ook van ons webwerf, www.falconequipment.co.za, afgelaai word.

Simbole wat in hierdie dokument gebruik word

	Safety-critical notices	Failure to comply with these notices may result in serious damage to equipment, personal injury or death.
	Veiligheidskritieke kennisgewings	Versuim om aan hierdie kennisgewings gehoor te gee kan ernstige skade aan toerusting, persoonlike beserings of dood tot gevolg hê.
	Procedures and checks	To be carried out by suitably competent persons in the course of installation, operation and maintenance of the equipment.
	Prosedures en kontroles	Moet deur toepaslik bekwame persone uitgevoer word by die installering, bedryf en instandhouding van die toerusting.
	General information	Information provided for references purposes, including any external references intended to be read in conjunction with this manual.
	Algemene inligting	Inligting vir verwysingsdoeleindes, insluitend enige eksterne verwysings wat bedoel is om saam met hierdie handleiding gelees te word.

COMPANY PROFILE

Falcon Agricultural Equipment (Pty) Ltd is the largest manufacturer of rotary cutters in Africa. The company opened its doors in 1985, at its current premises in Howick, Kwazulu-Natal, South Africa. This is the ideal location as it is an agricultural area with a leading agricultural college nearby.

Our primary market is the agricultural sector, with niche efforts into the industrial and turf implement markets. We distribute our products through a network of over 250 authorised dealers and approximately 110 dedicated mechanisation dealers countrywide. We also distribute our products across our borders into other African countries such as Botswana, Kenya, Malawi, Mozambique, Namibia, Uganda, Swaziland, Tanzania, Zambia, and Zimbabwe.

We manufacture the Falcon range of implements, and our ongoing program of innovation and improvement ensures that we consistently launch implements to satisfy our customers' ever-changing needs.

The Falcon range includes slashers, Haymakers®, material handling implements, mulchers, mowers, spreaders, rotavators, and flail implements. Each is designed to be simple, safe, and serviceable while offering excellent value for money. They are built to last and are capable of coping with the tough South African conditions.

In many parts of South Africa "Falcon" is the generic term for grass-cutting implements, making us the undisputed leader in our field. Delivery on a marketing promise is the foundation of any successful marketing drive and farmers buying the Falcon brand buy more than just a product - they buy the heritage and expertise of a company that has been around for a long time!

We also import a range of implements that complement the locally manufactured ones. These include the Amazone spreaders, sprayers, mowers, and soil tillage implements (from Germany).

Falcon Agricultural Equipment (Pty) Ltd is committed to supporting our local communities in many different ways. Our main focus is the well-being of children and we provide a safe and suitable school environment for them, as well as school-related necessities.

Our team prides itself on its professional approach to business. We have built long-standing relationships with our dealers and their customers based on honesty, trust, respect, and integrity. Excellent customer service is an important part of the Falcon promise.

MAATSKAPPYPROFIEL

Falcon Agricultural Equipment (Edms.) Bpk. is die grootste vervaardiger van wentelsnyers in Afrika. Die maatskappy het sy deure in 1985 by sy huidige perseel in Howick, KwaZulu-Natal, Suid-Afrika, geopen. Die ligging is ideaal: in 'n boerderygebied met 'n vooraanstaande landboukollege naby.

Ons hoofmark is die landbousektor, met nisverkope in die nywerheids- en grasbaanimplement-markte. Ons versprei ons produkte deur 'n netwerk van meer as 250 gemagtigde handelaars met ongeveer 110 toegewyde meganisasiehandelaars landswyd. Ons versprei ook ons produkte oor ons grense na ander Afrikalande soos Botswana, Kenia, Malawi, Mosambiek, Namibië, Uganda, Swaziland, Tanzanië, Zambië, en Zimbabwe.

Ons vervaardig die Falcon-implementreekse en ons voortgesette program van vernuwing en verbetering verseker dat ons konstant implemente bekendstel wat ons kliënte se immer veranderende behoeftes bevredig.

Die Falcon-reeks sluit wentelsnyers, Hooimakers®, materiaalhanteringsimplemente, mulchers, grassnyers, strooiers, kapploeë en vleëlimplemente in. Almal is ontwerp om eenvoudig, veilig en diensbaar te wees terwyl hulle uitstekende waarde vir geld bied. Hulle is gebou om te hou en ons strawwe Suid-Afrikaanse toestande die hoof te bied.

In baie dele van Suid-Afrika is "Falcon" die generiese term vir grassny-implemente, wat ons die onbetwiste leier op ons gebied maak. Die nakom van 'n bemarkingsbelofte is die grondslag van enige geslaagde bemarkingsveldtog, en boere wat die Falcon-handelsmerk koop, koop meer as net 'n produk – hulle koop die erfenis en deskundigheid van 'n maatskappy wat al lank in die land is!

Ons voer ook 'n reeks implemente in wat die plaaslik-vervaardigdes komplementeer. Dit sluit in die Amazone-strooiers, -spuite, -grassnyers en -grondbewerkings-implemente (uit Duitsland).

Falcon Agricultural Equipment (Edms.) Bpk. is verbonde tot die ondersteuning van ons plaaslike gemeenskappe op baie verskillende maniere. Ons hooffokus is die welsyn van kinders, en ons verskaf vir hulle 'n veilige en geskikte skoolomgewing, sowel as skoolverwante benodigdhede.

Ons span is trots op sy professionele benadering tot besigheid. Ons het langdurige verhoudings met ons handelaars en hul klante opgebou wat op eerlikheid, vertroue, respek en integriteit gebaseer is. Voortreflike klantediens is 'n belangrike deel van die Falcon-belofte.

WARRANTY AND DISCLAIMER

Falcon products are manufactured in accordance with established quality standards and are accompanied by a limited warranty against defective materials and workmanship. In terms of this warranty, Falcon or an authorised Dealer may conduct reasonable repairs or replacement of products or parts of products, as required.

General conditions of limited warranty

Any claim with respect to warranty shall satisfy the following minimum conditions.

- The implement has not been subjected to misuse, abuse, damage or acts of negligence.
- The Owner is in possession of, and can demonstrate an understanding and application of the provisions of this manual.
- The implement has been used exclusively for its intended purpose and in a configuration in which it was designed to operate.
- Installation, setup, operation and maintenance of the implement have been carried out in accordance with this manual.
- Maintenance of the implement has been carried out as prescribed in this manual, using original and approved parts.
- The implement has not been subjected to structural, mechanical or any other unauthorised modification or repair.
- A warranty claim has been reported to an authorised Dealer within the prescribed warranty period for the product concerned.

Exclusions

The following items are excluded from warranty cover, including any costs relating to these.

- Parts reckoned as consumable or wearing parts.
- Products or parts of products exhibiting acceptable wear and tear.
- Temporary replacement, loan or hire of substitute parts or equipment.
- Transport and handling of affected products.
- Consequential damage or loss on the part of any person, organization or otherwise affected party.

Validity

This warranty supersedes all previous conditions of warranty, whether expressed or implied, including any previous obligation or liability on the part of Falcon in respect of non-conforming or defective product.

Disclaimer

Falcon maintains a programme of continuous product improvement and consequently reserves the right to change designs, specifications, descriptions and materials

WAARBORG EN VRYWARING

Falcon-produkte word vervaardig ooreenkomstig met gevestigde gehalte-standaarde en word deur ’n beperkte waarborg teen defektiewe materiale en vakmanskap gedek. Kragtens hierdie waarborg mag Falcon of ’n gemagtigde Handelaar redelike herstelwerk of vervanging van produkte of produkonderdele uitvoer, soos vereis.

Algemene voorwaardes van beperkte waarborg

Enige eis ten opsigte van die waarborg moet aan die volgende minimumvoorwaardes voldoen:

- Die implement is nie aan verkeerde gebruik, misbruik, beskadiging of verwaarlosing onderwerp nie.
- Die Eienaar is in besit van hierdie handleiding en kan ’n begrip en toepassing van die bepalings daarvan demonstreer.
- Die implement is uitsluitlik vir die bedoelde doel gebruik en in ’n konfigurasie waarin dit ontwerp is om bedryf te word.
- Installering, opstelling, bedryf en instandhouding van die implement het in ooreenstemming met hierdie handleiding plaasgevind.
- Instandhouding van die implement is uitgevoer soos in hierdie handleiding voorgeskryf, met gebruik van oorspronklike en goedgekeurde onderdele.
- Die implement is nie aan enige strukturele, meganiese of enige ander ongemagtigde wysiging of herstelwerk onderwerp nie.
- Kennis van ’n waarborg-eis is binne die voorgeskrewe waarborgtydperk vir die betrokke produk aan ’n gemagtigde Handelaar gegee.

Uitsluitings

Die volgende items word van waarborgdekking uitgesluit, insluitend enige onkoste daaraan verbonde.

- Onderdele as verbruikbare of slytonderdele geag.
- Produkte of produkonderdele wat aanvaarbare slytasie vertoon.
- Tydelike vervanging, leen of huur van vervangings-onderdele of -toerusting.
- Vervoer en hantering van geaffekteerde produkte.
- Gevolglike skade of verlies aan of deur enige persoon, organisasie of andersins geaffekteerde party.

Geldigheid

Hierdie waarborg vervang alle vorige waarborgvoor-waardes, hetsy eksplisiet of geïmpliseer, insluitend enige vorige verpligting of aanspreeklikheid van Falcon ten opsigte van nie-ooreenstemmende of defekte produkte.

Vrywaring

Falcon handhaaf ’n program van voortdurende produk-verbetering en gevolg behou ons die reg om ontwerpe, spesifikasies, beskrywings, materiale en enige ander

of construction and any other product attribute without prior notice. This includes no obligation to reflect such changes in documentation or literature or to provide any such changes to products previously sold or held in stock.

produkeienskap sonder voorafkennisgewing te wysig, insluitend geen verpligting om sulke veranderinge in dokumentasie of literatuur te weerspieël of aan te bring aan produkte wat voorheen verkoop of aangehou is nie.

Warranty Periods

Brands	Product groups	Components	Origin	Versions	Period
Falcon	Slashers Haymakers® Rollermowers Blowermowers™	Gearboxes	Imported	All	2y
			Falcon	F50	3y
				F80	3y
		PTO shafts	Imported	All	1y
		OEM parts	Falcon	All	2y
	Dual-spindle Slashers Dual-spindle Haymakers® Flexwing Grassmulchers™ Fieldmulchers™ SD Mulchers Rotagang®	Gearboxes	Imported	All	1y
			Falcon	F50	2y
				F60	1y
				F80	2y
		PTO shafts	Imported	All	1y
		OEM parts	Falcon	All	1y
	Flail implements	Gearboxes	Imported	All	1y
		PTO shafts	Imported	All	1y
		OEM parts	Falcon	All	1y
	Rotavators	Gearboxes	Falcon	All	1y
		OEM parts	Falcon	All	1y
	Rotorspreaders	OEM parts	Falcon	All	1y
		PTO shafts	Imported	All	1y
	Limespreaders	OEM parts	Falcon	All	1y
	Bale forks + beams	OEM parts	Falcon	All	1y
	Uniloaders®	OEM parts	Falcon	All	1y
	Bale Grab	OEM parts	Falcon	All	1y
Amazone	Spreaders Sprayers Soil Tillage Turf equipment	All	Amazone	All	1y

PRODUCT RANGE

The Falcon range of dual-spindle Haymakers® is intended for harvesting of grass and other fodder crops over wide expanses. As with all models of Falcon Haymakers®, they have the ability to produce a trailing swath of material (or windrow), suitable for baling.

- Available in a working width of 3.5 m, they are suitable for tractors between 65 and 90 kW.
- Both models feature a central T-gearbox and Falcon's new locally-manufactured F60 series gearbox – providing reliable, trouble-free operation and ease of maintenance.
- Intermediate drive shafts are fitted with torque protection mechanisms which accommodate the higher demands of counter-rotating cutting mechanisms.

Two tractor mounting configurations are available.

1. A mounted 'semi-trailed' (F60-350V) which is transported on the tractor 3-point hitch and with manual, pre-set cut height settings.
2. A fully trailed (F60-350VT) which is attached to the tractor using the integrated linkage drawbar and can therefore be accommodated on tractors of smaller capacity. Cut height setting is accomplished by hydraulic remote control and pre-selected operating height settings.

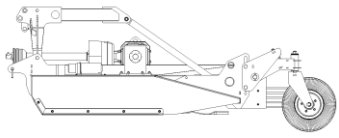
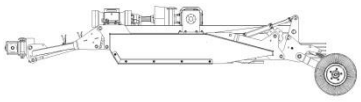
PRODUKREEKS

Die Falcon-reeks dubbelspil-Hooimakers® is ontwerp om gras en ander voergewasse oor groot gebiede te oes. Soos met al die Falcon Hooimaker®-modelle het hulle die vermoë om 'n windry geskik vir baling agter te laat.

- Beskikbaar in 'n werkswydte van 3.5 m en is geskik vir trekkers tussen 65 en 90 kW.
- Albei modelle beskik oor 'n sentrale T-ratkas en Falcon se nuwe plaaslik-vervaardigde F60 reeks ratkas vir betroubare, moeitevrye bedryf enmaklike instandhouding.
- Intermediêre dryfasse is toegerus met wringkrag-beskermingsmeganismes om die hoër eise van teendraaiingsnymeganismes te akkommodeer.

Twee trekkermonterings konfigurasies is beskikbaar.

1. 'n Gemonteerde semigesleepte snyer (F60-350V) wat aan die trekker se 3-punt-haak vervoer word en met snyhoogtes wat vooraf met die hand gestel is.
2. 'n Volledig gesleepte snyer (F60-350VT) wat m.b.v. die geïntegreerde koppeltrekstang aan die trekker gehaak word en derhalwe met kleiner trekkers gebruik kan word. Snyhoogteverstelling geskied m.b.v. hidrouliese afstandsbeheer en voorafgeselekteerde bedryfshoogte-instellings.

Profile	Model/ (Part No.)	Blades/ Spindles (qty)	Working width (mm)	W x L (mm)		Mass (kg)	Power, max. (kW)
	F60-350V (A0098)	2 (x2)	3500	3770	3165	1420	65–90
	F60-350VT (A0099)	2 (x2)	3500	3770	4040	1550	65–90
Profiel	Model/ (Onderdeelnr.)	Lemme/ Spille (getal)	Werkswydte (mm)	B x L (mm)		Massa (kg)	Krag, maks. (kW)

INSTALLATION

Attaching the implement to the tractor

⚠ Do not enter the area between the tractor and the implement unless the tractor engine is shut off, handbrake applied, and the key is removed from the ignition.

⚠ Use only hitch pins and linchpins of the correct specification, such as those provided with the implement.

F60-350V semi-trailed model

The implement is equipped with a standard 3-point hitch for attachment to the tractor, including a flexible link for top link attachment.

- With the implement in the working position, the tractor 3-point hitch top link length should be adjusted (Fig. 1-A) to allow the flexible link (Fig. 1-B) to assume an angle of approx. 45 degrees. Note that multiple hole locations (Fig. 1-C) are available in order to achieve an acceptable hitch geometry in both the working and lifted positions.
- After attachment to the tractor, lift the implement to an acceptable transport height and ensure that there is no contact between the implement and any part of the tractor.
- Adjust the tractor 3-point hitch stabilizer arms to prevent excessive lateral movement of the implement.
- Set the tractor hitch lift arms to a floating position to enable independent movement of the arms during cutting.

INSTALLERING

Koppel van die implement aan die trekker

⚠ Moenie tussen die trekker en die implement inbeweeg tensy die trekkerenjin afgeskakel, die handrem opgetrek en die sleutel uit die aansitter verwyder is nie.

⚠ Gebruik slegs haak- en lunspenne met die korrekte spesifikasies soos dié wat saam met die implement verskaf is.

F60-350V semigesleepte model

Die implement het ‘n standaard 3-punt-koppelstuk om die trekker aan te haak, insluitend ‘n buigbare skakel om bo-koppeling te vergemaklik.

- Met die implement in die werksposisie, moet die lengte van die trekker se 3-punt bo-koppeling aangepas word (Fig. 1-A) om die buigbare skakel (Fig. 1-B) toe te laat om 'n hoek van ongeveer 45 grade te vorm. Let daarop dat veelvuldige gate-liggings (Fig. 1-C) beskikbaar is om 'n aanvaarbare koppelgeometrie in beide die werks- en opgehefte posisies te bereik.
- Nadat dit aan die trekker gehaak is, lig die implement tot ’n aanvaarbare vervoerhoogte op en verseker dat daar geen kontak tussen die implement en enige deel van die trekker is nie.
- Verstel die 3-punt-haak-stabiliseerderarms om oormatige laterale beweging van die werktuig te verhoed.
- Stel die trekkerhaak se laerskakelarms in die flotering posisie om onafhanklike beweging van die arms tydens sny moontlik te maak.

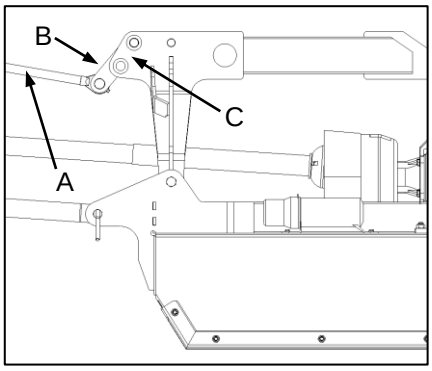


Fig. 1

F60-350VT trailed model

The implement is equipped with an integrated linkage drawbar, intended for attachment to the tractor hitch lower link arms.

- The operating height of the implement is influenced by the front hitch height. Should the tractor hitch position control be unreliable or prone to variability, adjustable check-chains (not supplied) should be installed between the tractor top link and the implement drawbar to prevent sagging.

F60-350VT gesleepte model

Die implement is toegerus met ‘n geïntegreerde koppeltrekstang vir koppeling aan die trekkerhaak se onderste koppelarms.

- Die implement se werkshoogte word deur die voorhaakhoogte beïnvloed. As beheer van die trekkerhaakposisie onbetroubaar is of wisselvallig kan wees, moet verstelbare keerkettings (nie voorsien nie) tussen die trekker-bokoppeling en die implement-trekstang aangebring word om afsakking te voorkom.

- Failure to maintain hitch height position will result in damage to the implement drawbar and hitch, and other failures not covered under warranty.

A parking jack is provided for assistance in hitching or unhitching of the implement from the tractor.

- Insert the parking jack (Fig. 2-A) into the socket on the implement hitch and install the pin provided.
- When hitching the implement to the tractor, operate the tractor hitch adjusting the height and spread of lower link arms to sufficiently clear the implement drawbar pins (Fig. 2-B). Engage the lowest available gear on the tractor and reverse the tractor towards the implement to align mounting pins and facilitate hitching.
- After attachment, lower the parking jack (or raise the tractor hitch) to allow removal of the jack.
- Place the parking jack in storage bracket (Fig. 2-C) provided on the front right-hand corner of the main deck while the implement is in operation.

- Versuim om haakhoogteposisie te handhaaf sal lei tot skade aan die implementtrekstang en -haak, en ander onklaarraking wat die waarborg nie dek nie.

'n Parkeerdomkrag word voorsien om met aan- en afhaak van die implement aan en van die trekker te help.

- Druk die parkeerdomkrag (Fig. 2-A) in die sok aan die implementhaak en druk die pen in wat voorsien is.
- Om die implement aan die trekker te haak, verstel eers die hoogte en sprei van die onderste koppelarms van die trekkerhaak só dat dit die implement se trekstang-penne genoegsaam vry laat (Fig. 2-B). Kies die laagste beskikbare rat en stoot die trekker agteruit na die implement toe om in lyn met die monteerpenne te kom en haak die implement aan.
- Laat sak dan die parkeerdomkrag of lig die trekkerhaak op sodat die domkrag verwyder kan word.
- Stoor die parkeerdomkrag in die stoorklamp (Fig. 2-C) op die voorste regterhoek van die hoofdek terwyl die implement in gebruik is.

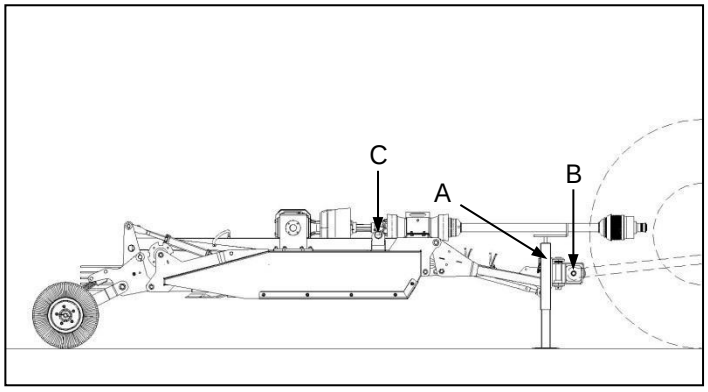


Fig. 2

Installing the PTO driveshaft

- Ensure proper engagement between the PTO driveshaft couplings and the input and output shafts on the implement and tractor.
- Ensure sufficient overlap of the PTO driveshaft tubes at the working position.
- Do not exceed the specified PTO driveshaft speed.
- Do not operate the implement without PTO driveshaft guards in place and in good condition. Anti-rotation chains must be attached.
- Replace damaged or missing PTO guard parts only with original spare parts.
- Do not approach the rotating PTO driveshaft and avoid loose fitting clothing to prevent entanglement.

All models

Due to the many variations in tractor and implement hitch configurations, it is likely that the supplied PTO driveshaft will have to be cut to suit the operating distance between the tractor and the implement.

- Before cutting the PTO driveshaft to the appropriate operating length, refer to the manufacturer's instructions

Installering van die kragaftakkeras

- Verseker behoorlike inskakeling tussen die kragaftakkeras se koppelstukke en die inset- en leweringsasse aan die implement en trekker.
- Verseker voldoende oorvleueling van die kragaftakkeras se buise in die werksposisie.
- Hou binne die gespesifiseerde kragaftakkeras-spoed.
- Moenie die implement bedryf sonder die krag-aftakkeras-skerms in posisie en in 'n goeie toestand nie. Antirotasiekettings moet aangeheg wees.
- Vervang beskadigde of vermiste kragaftakkeras-skermonderdele slegs met oorspronklike onderdele.
- Bly weg van die draaiende kragaftakkeras en vermy lospassende klere om verstrengeling te verhoed.

Alle modelle

Vanweë die talle variasies in trekker- en implementhaak-konfigurasies sal die kragaftakkeras wat verskaf is, waar-skynlik verkort moet word om by die werksafstand tussen die trekker en die implement te pas.

- Voordat die kragaftakkeras tot die gepaste werkslengte gesny word, verwys na die

supplied with the PTO driveshaft.

- Following installation of the PTO driveshaft, lift the implement to the appropriate transport height and ensure that there is no contact between the PTO driveshaft and the implement (Fig. 3-A/4-A).
- Ensure that universal joint operating angles are not exceeded, and that over-compression or over-extension of the PTO driveshaft is prevented (Fig. 3-B/4-B).

- All PTO drive shafts supplied on Falcon implements are accompanied by a product handbook (IM-03-2008) describing all aspects of installation, operation, maintenance, and safety with respect to the PTO drive shaft. The document constitutes part of this manual and will be found attached to the PTO drive shaft supplied with each new Falcon implement.

vervaardigersinstruksies wat saam met die kragaftakkeras voorsien is.

- Nadat die kragaftakkeras geïnstalleer is, lig die implement tot op die gepaste vervoerhoogte en verseker dat daar geen kontak tussen die kragaftakkeras en die implement is nie (Fig. 3-A/4-A).
- Verseker dat kruiskoppelingwerkshoeke nie oorskry word nie en maak seker dat die kragaftakkeras nie te veel saamgepers of oorverleng is nie (Fig. 3-B/4-B).

- Alle kragaftakkerasse vir Falcon-produkte word verskaf saam met 'n handleiding (IM-03-2008) wat alle aspekte van installasie, bedryf, instandhouding en veiligheidsmaatreëls i.v.m. die kragaftakkeras beskryf. Die dokument vorm deel van hierdie handleiding en is aangeheg aan die kragaftakkeras wat saam met elke nuwe Falcon-implement voorsien word.

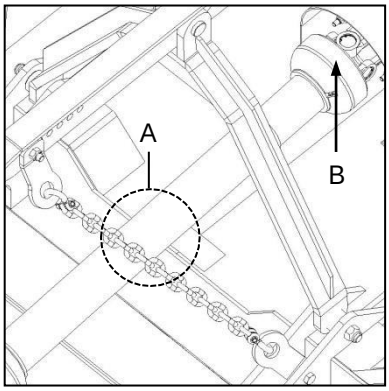


Fig. 3 (F60-350V)

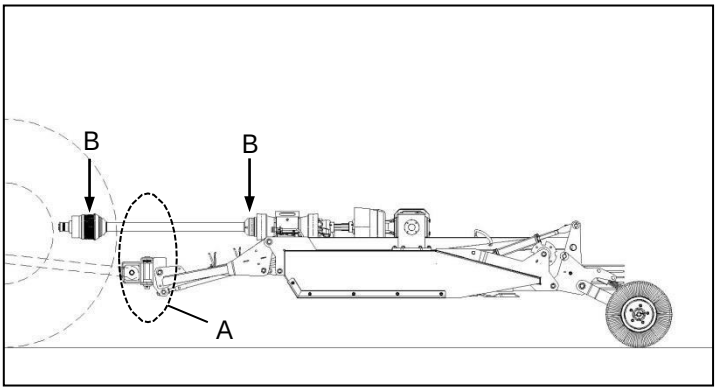


Fig. 4 (F60-350VT)

- On the F60-350VT model, specific checks should be conducted at the point of maximum articulation of the PTO driveshaft, i.e., while turning and lifted to its highest position (Fig. 4-A/B).

- Always ensure that the upper limit of tractor hitch position control is securely set to prevent inadvertent damage to the PTO driveshaft.

- Op die F60-350VT model moet spesifieke kontroles uitgevoer word by die maksimum-artikulasie-punt van die kragaftakkeras, d.w.s. wanneer daar gedraai en dit tot sy hoogste posisie opgelig word (Fig. 4-A/B).

- Verseker dat die hoogste perk van die trekkerhaak-posisiekontrole altyd stewig vas is om skade aan die kragaftakkeras te verhoed.

Hydraulic coupling

- Do not connect or disconnect hydraulic lines while the implement hydraulic circuit is pressurised.
- Remove all loads from hydraulic cylinders by providing suitable additional support for the implement prior to connecting or disconnecting hydraulic lines.

Hidrouliese koppeling

- Moenie hidrouliese pype koppel of ontkoppel terwyl die implement se hidrouliese stelsel onder druk is nie.
- Verwyder alle laste van hidrouliese silinders m.b.v. gepaste bykomende steun vir die implement voor koppeling of ontkoppeling van hidrouliese pype.

F60-350VT trailed model only

The implement is equipped with dual, parallel-connected, single-acting hydraulic cylinders for the purpose of remote height adjustment.

- Connect the implement's hydraulic line to an available single-acting auxiliary spool valve on the tractor.

Slegs F60-350VT gesleepte model

Die implement beskik oor dubbele, parallelgekoppelde, enkelwerkende hidrouliese silinders vir die doel van hoogteverstelling.

- Koppel die implement se hidrouliese pype aan 'n beskikbare enkelrigting hulpskietklep aan die trekker.

- Adjust flow-control at the spool valve to provide smooth, safe, and controllable operation of the hydraulic circuit.

- The hydraulic circuit on this implement is intended to operate at a working pressure of 180 Bar and a maximum relief pressure of 200 Bar. It is the responsibility of the owner to ensure that these conditions are met as failure to do so will result in failures and damages not covered under warranty.

Settings and adjustment

- Do not perform maintenance or any other work on the implement unless the tractor engine is shut off, handbrake applied, and the key is removed from the ignition.
- Do not perform maintenance or any other work on the implement while it is suspended only on the tractor 3-point hitch, supported only by the hydraulic system, or without suitable additional support for the implement.

F60-350V semi-trailed model

The rear working height of the implement is set by simultaneously adjusting the position of the rear wheel assembly in relation to the implement deck.

- To set the working height, remove the lower wheel assembly retaining bolt (Fig. 5-B) and loosen the upper retaining bolt (Fig. 5-A).
- Slide the wheel assembly to an appropriate working position and replace the lower retaining bolt, which should coincide with an available hole position.
- Be sure to select similar hole positions at both rear wheel adjustment points.
- In the working position the front of the implement is supported on the tractor 3-point hitch. To level the implement, set the lower link arm positions (Fig. 6-A) so that the implement is parallel to the ground (Fig. 6-B).

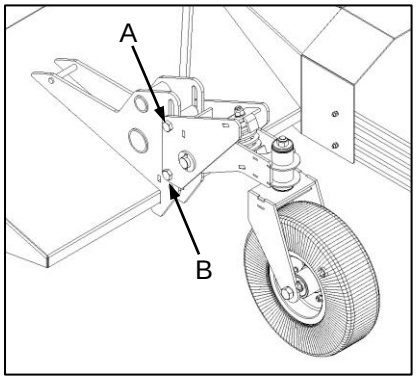


Fig. 5

- Verstel vloeibeheer by die skietklep om gladde, veilige en beheerbare werking van die hidrouliese stelsel te voorsien.

- Die implement se hidrouliese stelsel is ontwerp om teen ’n druk van 180 Bar en ’n maksimum ontlastings-druk van 200 Bar te werk. Die eienaar is verantwoordelik om te verseker dat hierdie voorwaardes nagekom word, en versuim daarvan sal lei tot onklaarraking en skade wat nie deur die waarborg gedek word nie.

Instellings en verstelling

- Moenie enige instandhouding- of ander werk aan die implement doen tensy die trekkerenjin afgeskakel, die handrem opgetrek en die sleutel uit die aansitter verwyder is nie.
- Moet geen instandhouding- of ander werk aan die implement uitvoer terwyl dit net aan die trekker se 3-punt-haak hang, deur slegs die hidrouliese stelsel in posisie gehou sonder bykomende steun nie.

F60-350V semigesleepte model

Die implement se werkshoogte word gestel deur die posisie van die agterwielmontering in verhouding tot die implementdek te verstel.

- Om die werkshoogte te stel, verwyder die onderste wielmonteringklembout (Fig. 5-B) en maak die boonste klembout los (Fig. 5-A).
- Skuif die wielmontering na ’n gepaste werksposisie en plaas die onderste klembout in die betrokke beskikbare ooreenstemmende gat terug.
- Maak seker dat die posisies van die gate vir die twee agterwielverstelpunte dieselfde is.
- In die werksposisie word die voorkant van die implement op die trekker se 3-punt-koppelstuk gesteun. Om die implement gelyk te maak, stel die onderste skakelarmposisies (Fig. 6-A) so dat die implement parallel met die grond is (Fig. 6-B).

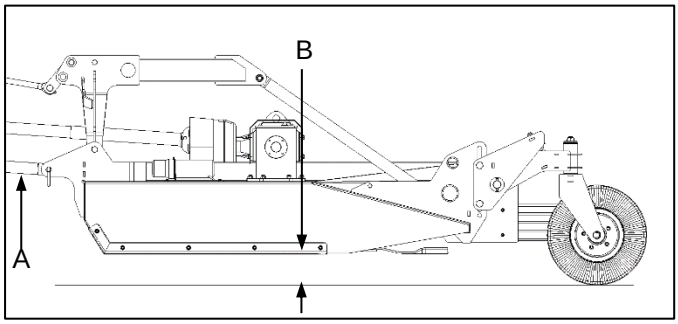


Fig. 6

F60-350VT trailed model

Working height setting of the implement is accomplished hydraulically. For more detailed information on using this facility, refer to OPERATION, elsewhere in this manual.

This implement must be properly levelled once hitched to the selected tractor. There are two principal adjustments that need to be carried out.

1. Maximum drawbar height: This adjustment offers three drawbar height positions, dependent on the category of tractor hitch in use and the chosen operating height.
2. Drawbar swivel pin angle: This enables the linkage drawbar swivel pin to be adjusted to always assume a vertical position - in response to the chosen drawbar height setting.

Maximum drawbar height setting is accomplished by adjusting the orientation of the drawbar in relation to the implement deck.

- Set the rear height to the maximum setting by operating the height adjustment cylinders and applying the cylinder lock (Fig. 7-A).
- Place a block or adjustable stand under the front corners of the implement deck (Fig. 8-A) such that it is parallel to the ground.

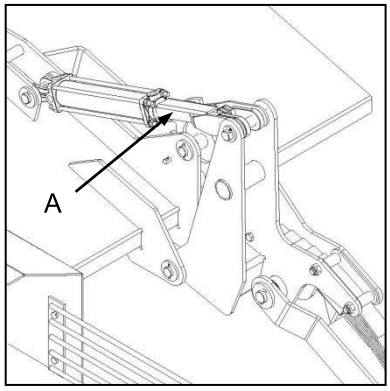


Fig. 7

- Remove the pins from the drawbar positioning links (Fig. 8-B) and operate the tractor hitch (Fig. 8-C) to select a desirable maximum operating height.
- Replace the drawbar positioning link pins to retain the desired position and again carefully readjust the tractor hitch to ensure that the implement is parallel to the ground.
- In this position, set the tractor hitch position control limits to prevent this hitch height from being exceeded during operation.

F60-350VT gesleepte model

Werkshoogte-instelling van die implement word hidroulies uitgevoer. Vir meer besonderhede oor die gebruik van hierdie fasiliteit, verwys na WERKING, elders in hierdie dokument.

Hierdie implement moet behoorlik waterpas gemaak word nadat dit aan die trekker gehaak is. Daar is twee hoof-instellings wat uitgevoer moet word.

1. Maksimum trekstanghoogte: Hierdie verstelling bied drie trekstangposisiehoogtes, na gelang van die kategorie trekkerhaak in gebruik en die gekose werkshoogte.
2. Trekstang-krinkspilhoek: Dit maak verstelling van die koppelingtrekstang-krinkspil moontlik sodat dit altyd in ‘n vertikale posisie is in reaksie op die gekose trekstanghoogte-instelling.

Maksimum trekstanghoogte-instelling word verkry deur die oriëntasie van die trekstang in verhouding tot die implementdek te verstel.

- Stel die agterste hoogte op die maksimum m.b.v. die hoogteverstellingsilinders en dan sluiting van die silinderslot (Fig. 7-A).
- Plaas ‘n blok of verstelbare stut onder die voorste hoeke van die implementdek (Fig. 8-A) só dat dit parallel met die grond is.

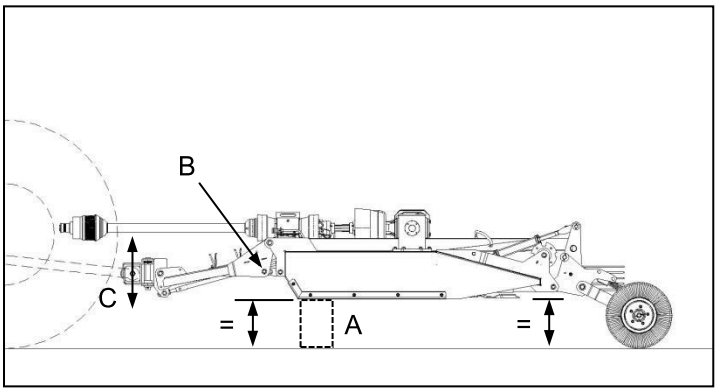


Fig. 8

- Verwyder die penne van die trekstangposisioneringskakels (Fig. 8-B) en gebruik die trekkerhaak (Fig. 8-C) om ‘n verlangde maksimum werkshoogte te kies.
- Plaas die penne terug om die trekstang in die verlangde posisie te hou en verstel die trekkerhaak weer noukeurig om te verseker dat die implement parallel met die grond is.
- Stel in hierdie posisie die perke van die trekkerhaak-posisiebeheer om te verhoed dat hierdie haakhoogte tydens bedryf van die implement oorskry word.

- This MAXIMUM drawbar operating height setting will determine the closest safe approach that the hitch should make to the PTO shaft during operation (usually the transport position), so failure to carry out this procedure will result in failures and damages not covered under warranty.
- Readjustment of maximum drawbar height will be required on each occasion that the implement is hitched to a tractor of a different hitch configuration.

Once the implement is levelled the hitch swivel pin angle should be adjusted.

- Release the front hitch tie-rod locknut (Fig. 9-A) and turn the adjusting nut (Fig. 9-B) to set the hitch swivel pin to a vertical position (Fig. 9-C).
- Securely tighten all locking nuts after adjustment.

- Hierdie MAKSIMUM trekstangwerkshoogte sal bepaal hoe naby aan die kragaftakkeras die haak met veiligheid sal kan kom tydens bedryf (gewoonlik die vervoerposisie), dus sal versuim om hierdie prosedure uit te voer onkllaarraking en skade veroorsaak wat nie deur die waarborg gedek word nie.
- Herverstelling van maksimum trekstanghoogte sal nodig wees elke keer wanneer die implement aan ‘n trekker met ‘n verskillende haakkonfigurasie gehaak word.

Wanneer die implement waterpas is, moet die haak se krinkspilhoek verstel word.

- Ontspan die voorste spoorstangsluitmoer los (Fig. 9-A) en draai die verstelmoer (Fig. 9-B) om die haak se krinkspil in ‘n vertikale posisie te stel (Fig. 9-C).
- Draai alle sluitmoere styf vas na verstelling.

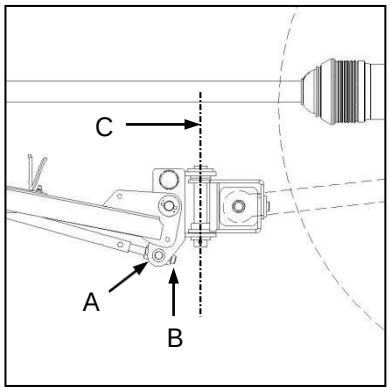


Fig. 9

Lubrication and oil levels

All models

Confirm that all gearbox oil levels are correct prior to use of the implement.

- A dipstick (Fig. 10-A) is provided on each of the outboard gearboxes for this purpose. The oil level should fall within the area indicated on the dipstick.
- The centre gearbox is equipped with oil filling ports. Remove the upper filler plug (Fig. 10-B) and add oil through the filling port so that the oil level coincides with the bottom edge of the hole.

- For lubrication requirements, refer to MAINTENANCE, Table 2, Lubrication Requirements.

Ensure that the main PTO driveshaft and all intermediate shafts are properly lubricated prior to use of the implement.

Smering en olievlakke

Alle modelle

Verseker dat die ratkasolievlakke korrek is voordat die implement gebruik word.

- Elk van die buiteratkaste het ’n peilstok (Fig. 10-A) vir hierdie doel. Die olievlak moet binne die perke val wat op die peilstok aangedui word.
- Die sentrale ratkas is van olievulgate voorsien. Verwyder die boonste vullerprop (Fig. 10-B) en voeg olie by totdat die olievlak gelyk is met die onderste rand van die gat.

- Vir smering vereistes, verwys na INSTANDHOUDING, Tabel 2, Smering Vereistes.

Verseker dat die hoofkragaftakkeras en alle tussenasse behoorlik geghries is voor gebruik van die implement.

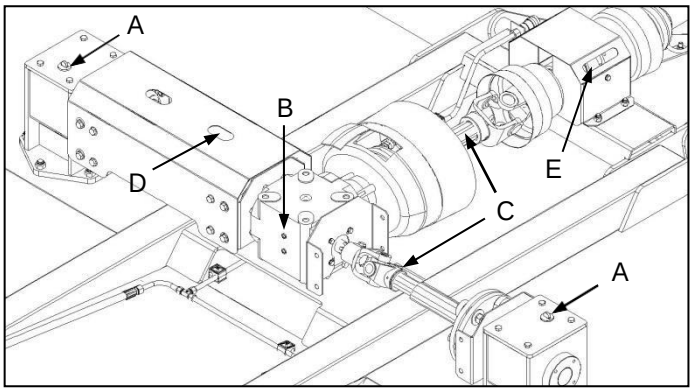


Fig. 10 (F60-350VT)

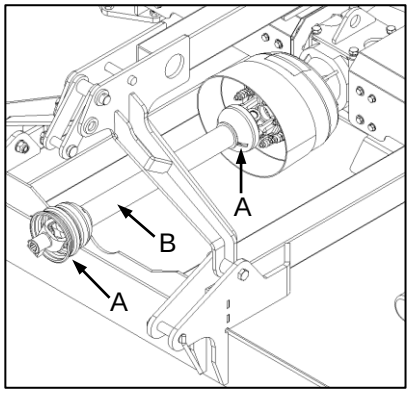


Fig. 11 (F60-350V)

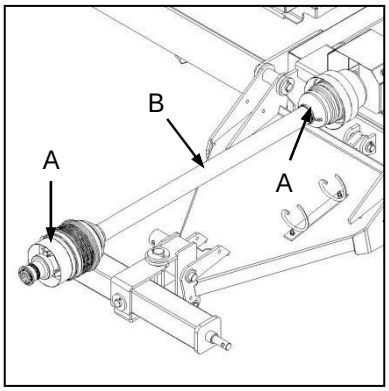


Fig. 12 (F60-350VT)

- Apply grease to the universal joints (Fig. 11-A/12-A) and telescopic tubes (Fig. 11-B/12-B) of the main PTO driveshaft.
- Intermediate shafts (Fig. 10-C, with cover removed for clarity) should have grease applied to the UV joints as well as the telescopic tubes. Note that both these locations are accessible through apertures provided on the intermediate shaft cover (Fig. 10-D).
- Apply grease to the double pedestal bearings (Fig. 10-E), also accessible through the aperture provided.

- For additional information, refer to the PTO manufacturer's handbook supplied with the implement.

- Ghries die kruiskoppelings (Fig. 11-A/12-A) en teleskopiese buise (Fig. 11-B/12-B) van die hoof-kragaftakkeras.
- Tussenasse (Fig. 10-C, met skerm dekking verwyder vir duidelikheid) se kruiskoppelings en teleskopiese buise moet geghries word. Let op dat al hierdie dele deur openinge in die tussenas-skerm dekking bereik kan word (Fig. 10-D).
- Ghries die dubbele voetkoeëllaers (Fig. 10-E), wat eweneens deur die betrokke opening bereik kan word.

- Verwys vir verdere inligting na die kragaftakkeras se vervaardigershandboek wat saam met die implement voorsien is.

OPERATION

General

It is the responsibility of the Owner to ensure that the operation of an agricultural tractor and any attached equipment is carried out in accordance with all applicable laws, regulations and practices relating to safe and responsible operation.

- Applicable regulations should include but not be limited to the South African Occupational Health and Safety Act No. 83 of 1993 and the South African National Road Traffic Act No. 93 of 1996.
- Refer also to operational information relevant to the tractor concerned, including handbooks, operators' manuals, safety and warning notices and decals.

Preparation for use

- ⚠ Only suitably trained persons should operate the implement and no person should operate the implement without first studying and establishing a complete understanding of the content of this manual.

The implement must be thoroughly inspected and prepared before each use and with reference to procedures described elsewhere in this manual.

1. Attaching the implement to the tractor.
2. Installing the PTO driveshaft.
3. Settings and adjustment.
4. Lubrication and oil levels.
5. Routine maintenance (before and after each use).

Inspect the work area

- Remove any movable obstructions from the work area, especially any object which may become a projectile.
- Note the presence of ditches, holes, stumps, rocks, or any other obstruction that might destabilise the tractor or cause damage to the implement. Remove these obstacles where possible, otherwise note and avoid these areas during cutting.

When areas are designated for the routine harvesting of hay and other grasses, it is imperative that those areas be properly prepared and thoroughly cleared of obstructions. In general, this will ensure safe operating conditions and extend the service life of the implement.

Operating the implement

- ⚠ Never approach or allow any person to approach the implement unless the implement has been lowered to the ground, the tractor engine is shut off, handbrake applied and the implement cutting gear has come to a complete stop.

WERKING

Algemeen

Dit is die verantwoordelikheid van die eienaar om te verseker dat die bedryf van 'n landboutrekker en enige gekoppelde toerusting uitgevoer word in ooreenstemming met alle toepaslike wette, regulasies en praktyke wat met veilige en verantwoordelike bediening te doen het.

- Toepaslike regulasies sluit in, maar is nie beperk tot, die Suid-Afrikaanse Wet op Beroepsgesondheid en Veiligheid nr. 85 van 1993 en die Suid-Afrikaanse Wet op Nasionale Padverkeer nr. 93 van 1996 nie.
- Verwys ook na tersaaklike bedryfsinligting oor die betrokke trekker, insluitend handboeke, operateurs-handleidings, veiligheid en waarskuwingskennisgewings en -plakkers.

Voorbereiding vir gebruik

- ⚠ Slegs toepaslik opgeleide persone moet die implement bedryf, en geen persoon moet dit bedryf sonder om eers die inhoud van hierdie handleiding te bestudeer en 'n volledige begrip daarvan te verkry nie.

Die implement moet telkens eers deeglik geïnspekteer en voorberei word voor dit gebruik word en met verwysing na prosedures wat in ander dele van hierdie handleiding beskryf word.

1. Koppeling van die implement aan die trekker.
2. Installering van die kragaftakkeras.
3. Instellings en verstellings.
4. Smering en olievlakke.
5. Roetine-instandhouding (voor en na elke gebruik).

Inspekteer die werksgebied

- Verwyder enige los obstruksies van die werksgebied, veral enige voorwerp wat dalk 'n projektiel mag word.
- Let op enige dongas, gate, stompe, klippe, of enige ander obstruksie wat die trekker mag destabiliseer of die implement kan beskadig. Verwyder hierdie hindernisse waar moontlik, of anders moet hierdie gebiede gedurende sny vermy word.

Wanneer gebiede vir die roetine-oes van hooi en ander grasse toegewys word, is dit noodsaaklik dat dié gebiede behoorlik voorberei en obstruksies verwyder word. In die algemeen sal dit veilige werkstoestande verseker en die dienslewe van die implement verleng.

Bedryf van die implement

- ⚠ Moet nooit die implement benader, of toelaat dat enigiemand anders dit doen, tensy die implement op die grond laat sak is, die trekkerenjin afgeskakel is, die handrem opgetrek en die implement se snymeganisme heeltemal tot stilstand gekom het nie.

⚠ Actively discourage spectators and cease operation of the implement if any person approaches or enters the work area.
⚠ Be sure to operate the implement only at the specified PTO input speed.
⚠ Do not approach the rotating PTO shaft and avoid loose fitting clothing to prevent entanglement.

⛔ Failure to operate the implement at the specified PTO shaft speed can result in unsafe operating conditions as well as structural and mechanical failure not covered under warranty.

Haymakers® are designed to harvest grass and other fodder crops which are typically baled after cutting. They are equipped with a system of scrolls, deflectors, and guides (Fig. 1-A), fitted to the underside of the implement deck. These control the flow of cut material and limit the likelihood of re-cutting, thereby producing the characteristic long material cut lengths, while also creating a trailing swath (or windrow) of processed material suitable for baling.

⚠ Toeskouers moet aktief ontmoedig word. Snywerk moet onmiddellik gestaak word as enige persoon die werksgebied benader of dit betree.
⚠ Verseker dat die implement slegs teen die gespesifiseerde kragaftakkerasinsetspoed bedryf word.
⚠ Bly weg van die draaiende kragaftakkeras en verhoed verstrengeling deur lospassende klere te vermy.

⛔ Versuim om die werktuig teen die neergelegde kragaftakkerasspoed te bedryf kan tot onveilige bedryfstoestande lei, asook strukturele en meganiese onklaarraking wat nie deur die waarborg gedek word nie.

Hooimakers® is ontwerp om gras en ander voergewasse te oes wat gewoonlik gebaal gaan word. Hulle beskik oor 'n stelsel van krulle, deflektors en leiplate (Fig. 1-A) onder aan die implementdek wat die vloei van gesnyde materiaal beheer en die waarskynlikheid van hersny beperk. Dit lewer die kenmerkende lang snitlengtes, terwyl dit ook 'n windry van gesnyde materiaal agterlaat wat geskik is vir baling.

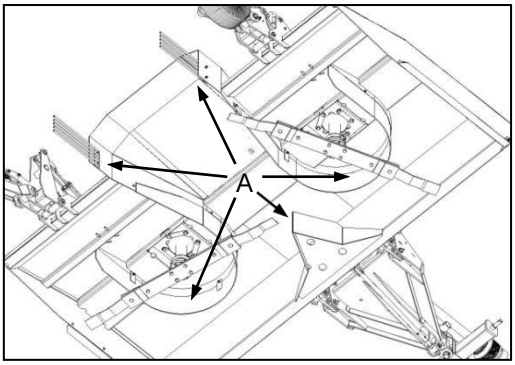


Fig. 1

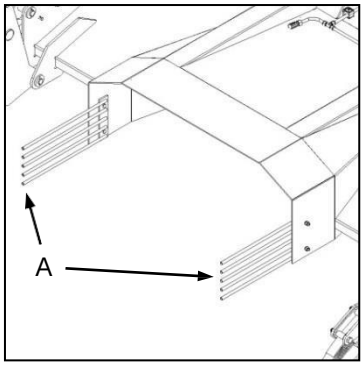


Fig. 2

⛔ Failure to properly prepare the areas of use (as described elsewhere in this section), will result in damages and failures to the under-deck scrolls, deflectors and guides, which shall not be covered under warranty.

For added control of the resultant windrow, material guides (Fig. 2-A) are provided on either side of the material discharge tunnel.

✔ Ensure that the material guides are properly oriented prior to use.

Blade selection

Appropriate blade selection is key to the operator's achieving the most effective process result. Therefore, due to the large variation in material properties and operating conditions likely to be encountered, blade selection should be arrived at through consultation with an authorised Falcon Dealer.

⛔ Versuim om die gebruiksgebied behoorlik voor te berei (soos elders in hierdie afdeling beskryf) sal tot beskadiging van die krulle, deflektors en leiplate lei wat nie deur die waarborg gedek sal word nie.

Vir bykomende beheer van die gevolglike windry is materiaalleiers (Fig. 2-A) weerskante van die afvoertonnel aangebring.

✔ Verseker dat die materiaalleiers behoorlik georiënteer is voor gebruik.

Lemseleksie

Gepaste lemseleksie is deurslaggewend vir die operateur om die mees effektiewe prosesresultate te verkry. Vanweë die groot wisseling in materiaaleienskappe en bedryfstoestande wat waarskynlik teëgekom sal word, moet die regte lemme in oorleg met 'n gemagtigde Falcon-handelaar gekies word.

Two different blade types are available, each providing a specific preferred result:

1. Haymaking blades: For general cutting and mild discharge rates.
2. Blowermower™ blades: Flighted blades with the capability to lift and discharge material at higher rates.

⛔ Only one blade type should be fitted to the implement at any time and NOT combinations thereof.

The cutting process

The following procedure is recommended for starting the cutting process and, in general, should be followed on each occasion that PTO input is engaged.

- ✔ Start the tractor with the implement suspended on the tractor 3-point hitch, alternatively (in the case of the F60-350VT trailed version) at the maximum available height.
- ✔ Lower the implement so that it is just clear of the ground and engage the PTO at idle speed.
- ✔ Set the throttle to provide the specified PTO input speed and lower the implement to the working position.
- ✔ Place the tractor in a low gear and begin cutting.

- ⛔ Unless otherwise indicated, the specified implement PTO input speed shall be 540 r/min.
- ⛔ On tractors with an "economy" PTO drive option (indicated as 540E on the tractor tachometer) refer to the tractor operator's manual in selecting the relevant PTO gearbox ratio on the tractor to maintain the specified implement PTO input speed.

Controlling the cutting process.

- ✔ Tractor forward speed should be controlled by gear selection and NOT engine speed.
- ✔ Tractor engine speed must be pre-set to continuously provide the specified PTO input speed, while forward speed should be controlled by an appropriate gear selection.
- ✔ When cornering or turning at the headland, should it be necessary for tractor forward speed to be reduced, the PTO drive should be disengaged and re-engaged prior to the next cutting pass.
- ✔ Forward speed should be adjusted with consideration for the amount of material being processed, and the quality of the cut material. In general, speed should be increased to reduce the containment time of the material under the implement and prevent excessive processing (or mulching).

› F60-350VT trailed model only

The implement has four pre-selected cut heights available. The cut height position is engaged by lowering the

Twee verskillende lemtipes is beskikbaar, waarvan elk 'n bepaalde voorkeurresultaat lewer:

1. Hooimaaklemme: Vir algemene sny en matige afvoerkoerse.
2. Blowermower™-lemme: Gevlerkte lemme met die vermoë om materiaal teen 'n hoër tempo te lig en uit te werp.

⛔ Slegs een lemtipe op 'n slag moet aan die implement aangebring word en NIE kombinasies daarvan nie.

Die snyproses

Die volgende prosedure word aanbeveel om die snyproses te begin en moet in die algemeen gevolg word elke keer wanneer die kragaftakker gebruik word.

- ✔ Skakel die trekkerenjin aan met die implement wat aan die 3-punt-haak hang of anders (in die geval van die F60-350VT gesleepte model) op die maksimum beskikbare hoogte.
- ✔ Laat die implement sak sodat dit net bo die grond is en kry die kragaftakker op luierspoed.
- ✔ Stel die versneller om teen die gespesifiseerde kragaftakkerinsetspoed te loop en laat sak die implement na die werksposisie.
- ✔ Sit die trekker in 'n lae rat en begin sny.

- ⛔ Behalwe as anders aangedui, is die gespesifiseerde implement se kragaftakkerinsetspoed 540 r/min.
- ⛔ By trekkers met 'n "ekonomie"-kragaftakker-dryfopsie (aangedui as 540E op die trekker se toereteller) verwys na die trekkerbestuurder se handleiding vir die kies van die tersaaklike kragaftakkerratkas-verhouding om die gespesifiseerde implement se kragaftakkerinsetspoed te handhaaf.

Beheer van die snyproses.

- ✔ Die trekker se vorentoe spoed moet deur ratseleksie en NIE enjinspoed beheer word nie.
- ✔ Trekkerenjinspoed moet vooraf gestel word om die vereiste kragaftakkeras-insetspoed konstant te hou, terwyl vorentoe spoed deur gepaste ratseleksie beheer moet word.
- ✔ Wanneer daar gedraai of by die wenakker omgedraai word en dit nodig is om die trekker se spoed te verminder, ontkoppel die kragaftakker en herkoppel dit voor die volgende omgaanslag.
- ✔ Vorentoe spoed moet verstel word met inagneming van die hoeveelheid materiaal wat verwerk word en die gehalte van die gesnyde materiaal. In die algemeen moet die spoed verhoog word om die houtyd van die materiaal onder die implement te verminder en oormatige verwerking (of mulching) te verhoed.

› Slegs F60-350VT gesleepte model

Die implement het vier voorafgeselekteerde snyhoogtes, waarvan die verlangde een gestel word deur die implement

implement from the transport position to a position determined by rotary height selectors.

Operate the implement at the pre-selected working height.

- Raise the implement to the transport position using the remote hydraulic control facility and apply the transport locks.
- Remove the R-clip and locking pin (Fig. 3-A) from the rotary height selector (Fig. 3-B) and rotate the selector to the desired height setting (1 through 4).

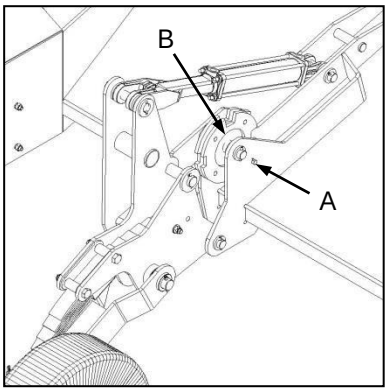


Fig. 3

- Lower the implement from the transport position such that the wheel support pin (Fig. 4-A) engages with the available slot in the rotary height selector (Fig. 4-B).
- Ensure that the same height settings are chosen for both rear wheels.

Transportation and storage

F60-350V semi-trailed model

The implement may be transported on the tractor 3-point hitch between work sites.

- Ensure that the implement is lifted to a suitable height to clear any obstacles.
- Adjust stabilisers on the tractor hitch to prevent excessive lateral sway and possible contact with the tractor tyres.
- Maintain a speed low enough to prevent excessive bouncing and resultant damage to mounting points and other load-bearing components.

F60-350VT trailed model

The implement is intended to be trailed between worksites.

- The implement is equipped with a transport lock which must be applied prior to transportation.
- Ensure that the implement is set to its highest position prior to application of the transport lock.
- The recommended transport speed of 15 km/h must not be exceeded and in general, a speed should be maintained which prevents excessive bouncing and resultant damage to the towing hitch, mounting points, suspension and other load-bearing components.

van die vervoerposisie te verlaag na ‘n posisie wat deur hoogteselektors bepaal word.

Bedryf die implement op die geselekteerde werkshoogte.

- Lig die implement na die vervoerposisie met gebruik van die hidrouliese afstandbeheerfasiliteit en sluit die vervoerslotte.
- Verwyder die R-knip en sluitpen (Fig. 3-A) van die hoogteselektor (Fig. 3-B) en draai die selektor na die verlangde hoogte-instelling (1 tot 4).

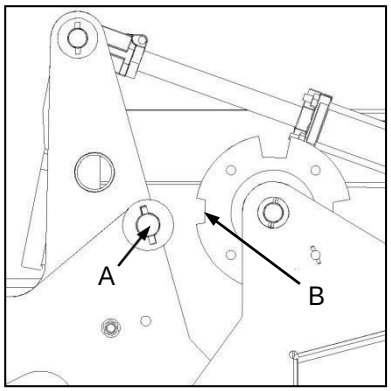


Fig. 4

- Laat sak die implement uit die vervoerposisie totdat die wielsteunpen (Fig. 4-A) in die beskikbare gleuf in die hoogteselektor inhaak (Fig. 4-B).
- Verseker dat dieselfde hoogte-instelling vir albei agterwiele gekies word.

Vervoer en berging

F60-350V semigesleepte model

Die implement kan tussen werksterreine aan die trekker se 3-punt-haak vervoer te word.

- Verseker dat die implement hoog genoeg gelig is om tydens vervoer bo-oor enige hindernisse te kan beweeg.
- Verstel stabiliseerders aan die trekkerhaak om oormatige laterale beweging en moontlike kontak met die trekker se bande te verhoed.
- Handhaaf ’n spoed wat laag genoeg is om oormatige bonsing en gevolglike skade aan monteerpunte en ander ladingdraende komponente te verhoed.

F60-350VT gesleepte model

Die implement is ontwerp om tussen werksterreine gesleep te word.

- Die implement is toegerus met ’n vervoerslot wat voor vervoer in die sluitposisie moet wees.
- Verseker dat die implement in die hoogste posisie is voor die vervoerslot gesluit word.
- Die aanbevole vervoersnelheid van 15 km/h moet nie oorskry word nie, en in die algemeen moet ’n snelheid gehandhaaf word wat oormatige bonsing en gevolglike skade aan die sleephaak, monteerpunte, vering en ander ladingdraende komponente te verhoed.

Applying and removing the transport locks.

- The transport locks may only be engaged if the hydraulic cylinders are fully extended, indicating that the implement is at its maximum height (Fig. 5-A).

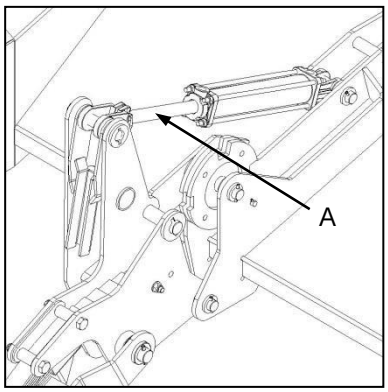


Fig. 5

- Engage the transport locks (Fig. 6-A).
- Lower the implement such that the transport locks settle against the hydraulic cylinder bodies.

- When preparing for transportation, both transport locks MUST be applied simultaneously.
- Note that failure to apply the transport locks during transportation or to observe an appropriate travelling speed may result in damages and failures not covered under warranty.

If the implement is to be stored for periods in excess of a month, it is recommended that the implement body be firmly supported on blocks or automotive axle stands to prevent unnecessary, extended loading of the suspension system.

The parking jack should not be used during long-term storage. Instead, provide stable alternative support under the implement hitch.

Sluit en verwydering van die hoofvervoerslot.

- Die hoofvervoerslot kan gesluit word slegs as die hoof hidrouliese silinder op volle lengte is – wat aandui dat die implement op sy maksimum hoogte is (Fig. 5-A).

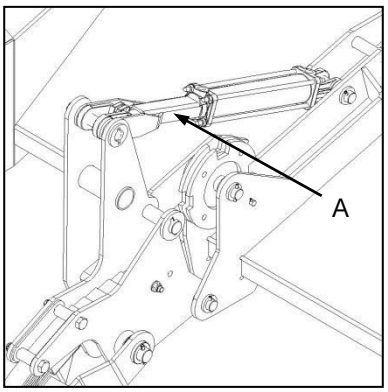


Fig. 6

- Sluit die vervoerslotte (Fig. 6-A).
- Laat die implement sak totdat die vervoerslotte en die hidrouliese-silinder-omhulsels teenaan mekaar is.

- Wanneer vir vervoer voorberei word, MOET albei vervoerslotte gelyktydig gesluit wees.
- Let daarop dat versuim om die vervoerslotte tydens vervoer te sluit of ’n gepaste ryspoed te handhaaf, tot skade en onklaarraking mag lei wat nie deur die waarborg gedek word nie.

Indien die implement vir langer as ’n maand gestoor gaan word, word aanbeveel dat dit stewig op blokke of asblokke geplaas word om onnodige, langdurige las op die veringstelsel te verhoed.

Die parkeerdomkrag moet nie tydens langtermynberging gebruik word nie. Voorsien eerder stabiele alternatiewe steun onder die haak van die implement.

MAINTENANCE

Routine maintenance

- ⚠ Do not perform maintenance or any other work on the implement unless the tractor engine is shut off, handbrake applied, and the key removed from the ignition.
- ⚠ Do not perform maintenance or any other work on the implement while it is suspended only on the tractor 3-point hitch, or without suitable additional support for the implement.
- ⚠ Use only original and approved Falcon replacement parts and lubricants. Refer to the parts information provided in this manual.

Maintenance should be carried out before and after each use and in accordance with the schedules provided in this chapter.

- ⛔ Bolted connections should be checked for tightness with reference to Bolt Torque Specifications (Tab. 1).

› Before each use

To be carried out at least daily in periods of continuous use. Otherwise before each occasion that the implement is used. Extra care and attention should be given to implements which may have been unused for prolonged periods (longer than 1 month).

- ✔ Check gearbox oil levels and replenish as necessary.
- ✔ Lubricate PTO shaft UV joints and telescopic tubes and inspect for evidence of wear.

- ⛔ For lubrication requirements, refer to MAINTENANCE, Table 2, Lubrication.

INSTANDHOUDING

Roetine-instandhouding

- ⚠ Moenie instandhouding- of enige ander werk aan die implement doen tensy die trekkerenjin afgeskakel, die handrem opgetrek en die sleutel uit die aansitterpunt verwyder is nie.
- ⚠ Moenie instandhouding- of enige ander werk aan die implement doen terwyl dit net aan die trekker se 3-punt-haak hang, of sonder geskikte ekstra stutte vir die implement nie.
- ⚠ Gebruik slegs oorspronklike en goedgekeurde Falcon-vervangingsonderdele en smeermiddels. Verwys na die onderdele-inligting in hierdie handleiding.

Instandhouding moet telkens voor en na gebruik gedoen word, en in ooreenstemming met die skedules wat in hierdie hoofstuk vervat is.

- ⛔ Verseker dat koppelboute in ooreenstemming met die boutwringkragspesifikasiekaart vas is (Tab. 1).

› Voor elke gebruik

Word ten minste daagliks in tye van deurlopende gebruik uitgevoer. Anders voor elke geleentheid waar die implement gebruik word. Gee ekstra sorg en aandag aan implemente wat vir lang tydperke (meer as ’n maand) nie gebruik is nie.

- ✔ Gaan ratkasolievlakke na en vul aan soos benodig.
- ✔ Ghries kragaftakkeras-kruiskoppelings en teleskopiese buise en inspekteer vir tekens van slytasie.

- ⛔ Vir smering vereistes, verwys na INSTANDHOUDING, Tabel 2, Smering Vereistes.

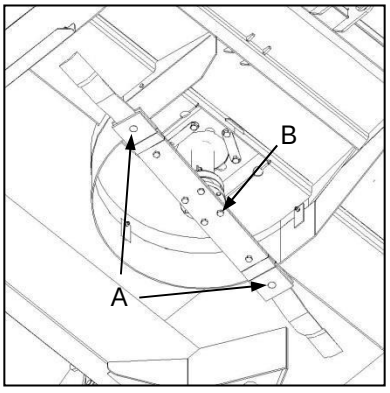


Fig. 1

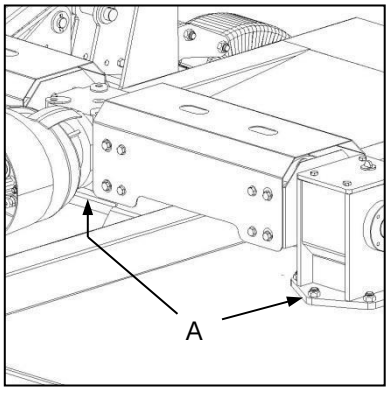


Fig. 2

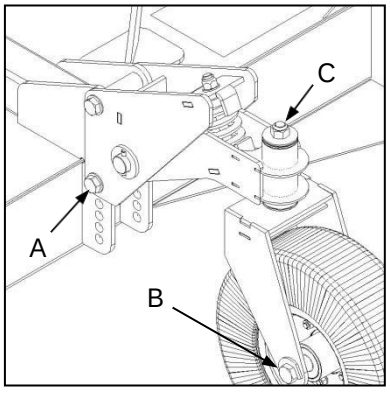


Fig. 3

- ✔ Confirm proper operation of PTO friction clutch as described elsewhere in this chapter.
- ✔ Check all fasteners for tightness. This includes special attention safety-critical fasteners such as blade bolts and nuts (Fig. 1-A/B), cutting gear mounting bolts (Fig. 1-C), gearbox mounting bolts (Fig. 2-A) and all wheel assembly fasteners and pivot points (Fig. 3-A/B/C).

- ✔ Bevestig behoorlike werking van die kragaftakkeras-wrywingkoppelaar soos elders in dié hoofstuk beskryf.
- ✔ Verseker dat alle hegstukke vas is, met spesiale aandag aan veiligheidskritieke hegstukke soos lemboute en -moere (Fig. 1-A/B), snymeganismemonteerboute (Fig. 1-C), ratkasmonteerboute (Fig. 2-A) en alle wielmonteringhegstukke en spilpunte (Fig. 3-A/B/C).

- Inspect blades for indications of wear and sharpen or replace as necessary. Where sharpening is carried out, ensure that blades are of similar shape and mass to prevent imbalance.
- Ensure that all guards, shields, and other safety devices are in place, properly secured and in good condition.
- Inspect all mounting pins, chains, shackles, and other load-bearing components for signs of wear. Check that all secondary securing mechanisms such as linchpins, split pins and clips are in place.
- Run the implement up to operating speed and conduct visual and audible checks for excessive vibration and noise.

- Causes of excessive vibration and noise must be identified and eliminated immediately to prevent consequential structural or mechanical failure not covered under warranty.

After each use

To be carried out at least every 40 hours in periods of continuous use. Otherwise after each occasion that the implement is used, or before long-term storage (longer than 1 month).

- Clean all debris from the implement, particularly the underside of the deck. Where pressurised cleaning is undertaken, care must be taken in areas around seals, breathers, lubrication points and PTO driveshaft components.
- Thoroughly inspect the implement for any damages incurred during use and note these for attention prior to next use.
- Ensure that all safety and warning decals are in place and in a legible condition.
- Before long-term storage (longer than 1 month), check oil levels and thoroughly lubricate all specified lubrication points.
- Store the implement in a clean, dry, weather-protected area.

PTO friction clutch inspection and adjustment

- The PTO friction clutch installed on this product is a torque-limiting device. It is an integral part of the PTO driveshaft assembly and is intended to protect both the implement and tractor PTO drivelines and transmission.
- Improper operation, maintenance or adjustment of the PTO friction clutch may result in damage not covered under warranty.
- The instructions which follow refer only to parts fitted by Falcon as original equipment, as reflected in the parts lists provided elsewhere in this manual.

Proper operation of the PTO driveshaft friction clutch must be confirmed prior to use of the implement, especially after long-term storage where corrosion and lack of use may result in binding or seizure of the friction clutch mechanism.

- Inspekteer lemme vir slytasie, en slyp of vervang indien nodig. Wanneer met die hand geslyp word, verseker dat die skerpgemaakte lemme eenders lyk en dieselfde weeg om ongebalanseerde rotasie te voorkom.
- Verseker dat alle skutplate en ander veiligheidstoestelle in posisie is, behoorlik vas en in ’n goeie toestand is.
- Gaan alle monteerpenne, kettings, penskakels en ander lasdraende komponente na vir tekens van slytasie. Verseker dat alle sekondêre hegmeganismes soos lunspenne, splitpenne en knippe in posisie is.
- Versnel die implement tot werkspoed en voer visuele en gehoorinspeksies uit vir oormatige vibrasie en geraas.

- Oorsake van oormatige vibrasie en geraas moet geïdentifiseer en onmiddellik uitgeskakel word om gevolglike strukturele of meganiese onklaarraking te verhoed wat nie deur die waarborg gedek word nie.

Na elke gebruik

Word ten minste elke 40 uur in tye van deurlopende gebruik uitgevoer. Anders na elke geleentheid wat die implement gebruik is, of voor langtermynberging (langer as 1 maand).

- Verwyder alle vuiligheid van die implement, veral onder die dek. Drukspuitskoonmaak moet versigtig gedoen word, veral naby seëls, luggate, ghriespunte en kragaftakkeras-komponente.
- Inspekteer die implement deeglik vir enige beskadiging tydens gebruik. Merk dit aan vir aandag en herstel voor dit weer gebruik word.
- Verseker dat alle veiligheids- en waarskuwingsplakkers in posisie, sigbaar en leesbaar is.
- Voor langtermynberging moet olievlakke in die implement nagegaan en alle ghriespunte deeglik gesmeer word.
- Stoor die implement in ‘n droë, skoon, weerbestande plek.

Kragaftakkeraswrywingkoppelaar inspeksie en verstelling

- Die kragaftakkeras-wrywingkoppelaar is ’n wringkrag-beperkende toestel. Dis ’n integrale deel van die kragaftakkeras en is ontwerp om die werktuig én die trekker se kragaftakkeras-dryfstelle en -transmissie te beskerm.
- Onbehoorlike bedryf, instandhouding of verstelling van die kragaftakkeras se wrywingkoppelaar kan tot skade lei wat nie deur die waarborg gedek word nie.
- In die instruksies wat volg is onderdele waarna verwys word, streng oorspronklike Falcon-onderdele, soos weerspieël in die onderdeellyste wat elders in hierdie handleiding verskyn.

Behoorlike bedryf van die kragaftakkeraswrywingkoppelaar moet bevestig word voor gebruik van die implement, veral na langtermynberging waar roes en onbruik na binding of vasbranding van die wrywingkoppelaarmeganisme kan lei.

- Release the pre-load on the friction clutch plates by loosening the nuts (Fig. 4-A) until the compression spring is just free to rotate by hand. Do not remove the nuts completely.
- Apply power to the PTO shaft and confirm that the centre hub rotates freely within the friction plate housing.
- If the friction clutch assembly is seized it will require rebuilding. This should be carried out using only original replacement parts.

The PTO friction clutch should also be regularly inspected for the following evidence of excessive slipping - typically an indication of transmission overload.

- Evidence of smoke, burning odours or residues.
- Discoloration or blistering of painted surfaces of the friction clutch housing (Fig. 5-B).
- The friction clutch housing feels significantly hotter than the surface of the gearbox casing (Fig. 5-A).

- If the friction clutch assembly shows signs of excessive slipping it will require rebuilding. This should be carried out using only original replacement parts and with reference to the parts information provided in this manual.

The friction disks within the friction clutch housing should be regularly inspected for wear. This is determined by measuring the thickness of the friction disk.

- All models: Friction clutch Cat T60 F42 by Comer Industries; Minimum friction plate thickness = 2 mm

- Ontspan die voorlas op die wrywingkoppelaarplate deur die moere los te draai (Fig. 4-A) totdat die drukveer net vry genoeg is om met die hand te draai. Moet die moere nie heeltemal verwyder nie.
- Kry die kragaftakkeras met krag aan die draai en bevestig dat die middelnaaf vrylik binne die wrywingplaatomhulsel draai.
- As die wrywingkoppelaarmontering vasgebrand is, sal dit herbou moet word deur slegs gebruik te maak van oorspronklike vervangingsonderdele.

Die kragaftakkeraswrywingkoppelaar moet ook gereeld vir die volgende tekens van oormatige gly nagegaan word – tipies 'n teken van transmissie-ooreising.

- Tekens van rook, brandreuke of oorblyfsels.
- Verkleuring of blaasvorming van geverfde oppervlakke van die wrywingkoppelaaromhulsel (Fig. 5-B).
- Die wrywingkoppelaaromhulsel voel beduidend warmer as die ratkasomhulsel (Fig. 5-A).

- As die wrywingkoppelaarmontering tekens van oormatige gly toon, moet dit herbou word, en dan slegs met oorspronklike vervangingsonderdele en met verwysing na die onderdeelinligting wat in hierdie handleiding voorsien word.

Die wrywingskywe in die wrywingkoppelaaromhulsel moet gereeld nagegaan word vir slytasie, wat vasgestel word deur die dikte van die wrywingskyf te meet.

- Alle modelle: Wrywingkopppelaar Cat T60 F42 deur Comer Industries; minimum plaatdikte = 2 mm

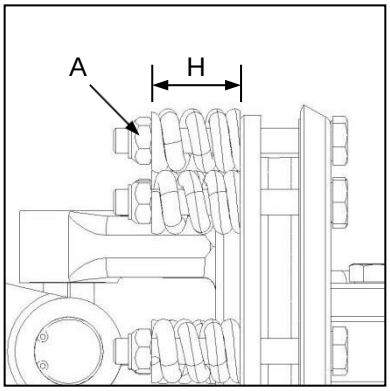


Fig. 4

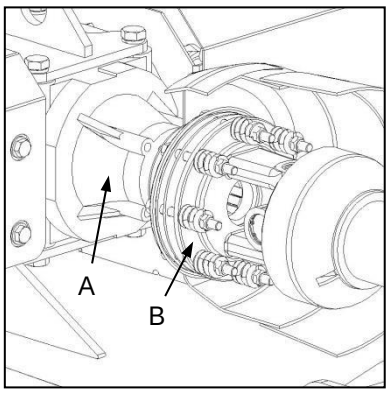


Fig. 5

Following any maintenance or repair of the PTO friction clutch assembly the pre-load on the friction clutch plates must be adjusted to factory specifications. This is accomplished by adjusting the nuts (Fig. 4-A) to set the compressed spring length (Fig. 4-H).

- All models: Friction clutch Cat T60 F42 by Comer Industries; H = 31.2 mm

Na instandhouding of herstel van die kragaftakkeras-wrywingkoppelaarmontering moet die voorlas op die koppelaarplate volgens fabriekspesifikasies verstel word. Dit word gedoen deur verstelling van die moere (Fig. 4-A) om die saamgeperste veer se lengte te stel (Fig. 4-H).

- Alle modelle: Wrywingkopppelaar Cat T60 F42 deur Comer Industries; H = 31.2 mm

Intermediate shaft maintenance and blade timing

Intermediate shafts should be regularly inspected for signs of wear. These shaft assemblies feature rubber diaphragm couplings with the purpose of providing added protection for the implement drivetrain from impulse torque loads.

Trailed and semi-trailed model

- Inspect the rubber diaphragm couplings (Fig. 6-A) and replace those which display evidence of distortion, splitting or cracking.
- Check telescopic tubes (Fig. 6-B) for indications of wear, distortion, or splitting. If replacement is necessary, replace BOTH halves of the telescopic joint.

Tussenas-instandhouding en lemtydreëling

Tussenaste moet gereeld vir tekens van slytasie nagegaan word. Hierdie asmonterings het rubberdiafragmakoppelings om bykomende beskerming vir die implement se dryfstel teen impulswringkragladings te bied.

Gesleep en semigesleepte model

- Inspekteer die rubber diafragma-koppeling (Fig. 6-A) en vervang dié wat tekens van vervorming, skeuring of krake toon.
- Gaan teleskopiese buise (Fig. 6-B) na vir enige tekens van slytasie, vervorming of skeuring. Indien vervanging nodig is, vervang BEIDE helftes van die teleskopiese gewrig.

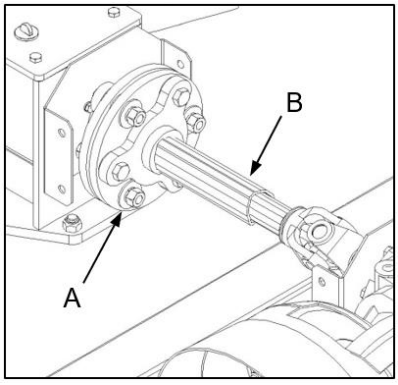


Fig. 6

The cutting gear assemblies on this implement are mechanically timed to prevent contact between blades in the region of overlap. Following any maintenance or disassembly of the intermediate drivetrain, blade timing needs to be re-established.

- Fully assemble one half (e.g., left-hand side) of the implement drivetrain and place the blades of that cutting gear assembly in a 0°-180° position (Fig. 8-A).
- With the right-hand side intermediate shaft disconnected from the center gearbox (Fig. 7), slowly rotate the right-hand cutting gear assembly, pausing on each occasion that the blades are in an approximate 90°-270° orientation (Fig. 8-B).

- Couple the right-hand intermediate shaft to the center gearbox on the first occasion that the splines are aligned, and the right-hand cutting gear blades are within ±15° of the required position.
- Rotate the fully assembled implement drivetrain several times by hand to ensure proper blade timing before applying PTO power to the implement.

Die tydreëling van snymeganismemonterings aan hierdie implement is meganies gestel om kontak tussen lemme in die omgewing van oorvleueling te verhoed. Na enige instandhouding of uitmekaarhaal van die tussenasstel moet lemtydreëling herstel word.

- Monteer een helfte (bv. die linkerkant) van die asstel volledig en plaas die lemme van daardie snymeganismemontering in ’n 0°–180°-posisie (Fig. 8-A).
- Met die regterkantste tussenas ontkoppel van die sentrale ratkas (Fig. 7), draai die regterkantste snymeganismemontering stadig en stop elke keer wanneer die lemme in ongeveer ’n 90°–270°-oriëntasie is (Fig. 8-B).

- Koppel die regterkantste tussenas aan die sentrale ratkas die eerste keer wanneer die ribbe belyn is en die regterkantste snymeganismelemme binne ±15° van die vereiste posisie is.
- Draai die volledig-gemonteerde dryfstel ’n paar keer met die hand om behoorlike lemtydreëling te verseker voordat kragaftakkeras-krag aangewend word.

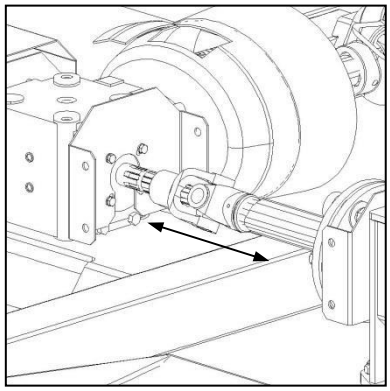


Fig. 7

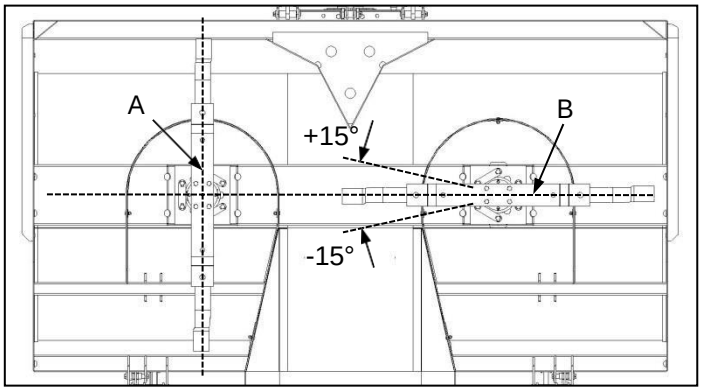


Fig. 8

Blade replacement

- ⚠ The cutting gear installed on these implements rotates at extremely high speed. Improper maintenance or repairs can result in failures which might cause serious damage, injury, or death.
- ⚠ Use only original Falcon parts of the correct specification and grade for installation of the implement cutting gear. High-speed failure of rotating parts can result in serious damage, injury, or death.

Blades should be replaced if they become damaged, bent, broken or have been reduced in mass by more than 20% because of wear.

- ✔ Replace all mounting hardware when fitting new blades. This includes blade bolts, bushes, and nuts.
- ✔ Check blade mounting holes (Fig. 9-A) for signs of wear, elongation, or fractures. In the event of any observed defect do NOT attempt a repair but provide immediate replacement of the defective item.

Lemvervanging

- ⚠ Die snymeganisme aan hierdie implemente draai teen ‘n uiters hoë spoed. Gebrekkige instandhouding of herstelwerk kan tot brekasies lei wat ernstige skade, beserings en selfs dood kan veroorsaak.
- ⚠ Gebruik slegs oorspronklike Falcon-onderdele met die korrekte spesifikasie en graad vir die installering van die snymeganisme. Hoëspoedbrekasie van draaiende onderdele kan ernstige skade, beserings of dood veroorsaak.

Lemme moet vervang word as hulle beskadig word, of buig of breek, of as hulle weens slytasie meer as 20% ligter geword het.

- ✔ Vervang al die betrokke monteringsonderdele wanneer nuwe lemme aangebring word. Dit moet lemboute, -busse en -moere insluit.
- ✔ Gaan lemmonteringsgate (Fig. 9-A) na vir tekens van slytasie, rekking of breuke. In die geval van enige waargenome defek, moet NIE probeer om dit herstel nie, maar vervang die defekte item onmiddellik.

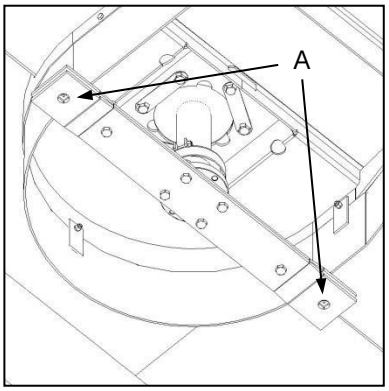


Fig. 9

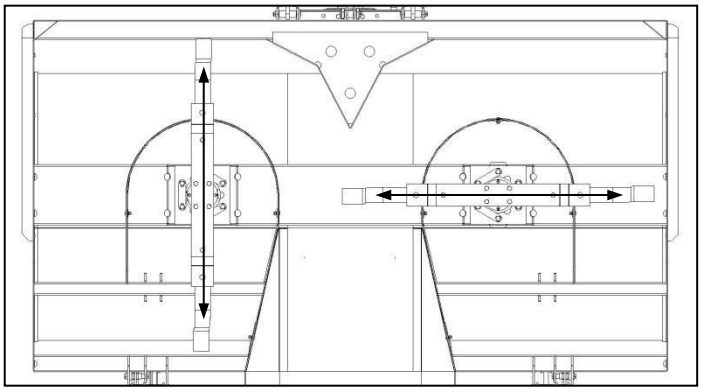


Fig. 10

- Check the blade beam for distortion prior to installation of new blades. Run the implement at a low speed without the blades attached and check for visible run-out (both radially and vertically). In the event of any observed defect do NOT attempt a repair but provide immediate replacement of the defective item.
- Weigh blades before installation. Blades of nearest equivalent masses should be installed in opposing positions on the same cutting gear assembly to maintain balance (Fig. 10).
- Following any maintenance or replacement of cutting gear components, run the implement up to operating speed and conduct visual checks for excessive vibration.

- Causes of excessive vibration must be identified and eliminated immediately to prevent consequential structural or mechanical failure not covered under warranty.

- Gaan die lembalk na vir verwringing voordat nuwe lemme aangebring word. Laat die implement sonder die lemme teen ’n lae spoed loop en kyk of daar enige sigbare waggeling (sowel radiaal as vertikaal) is. In die geval van enige waargenome defek, moet dit NIE probeer herstel nie, maar vervang die defekte item onmiddellik.
- Weeg lemme voor hulle aangebring word. Lemme met die naaste eenderse massas moet teenoor mekaar op dieselfde snymeganismemontering aangebring word om balans te handhaaf (Fig. 10).
- Na installering van nuwe snymeganisme-onderdele, kry die implement op werkspoed vir ‘n visuele inspeksie vir oormatige vibrasie.

- Oorsake van oormatige vibrasie moet vasgestel en onmiddellik uitgeskakel word om gevolglike strukturele of meganiese skade wat nie deur die waarborg gedek word nie, te verhoed.

Table / Tabel 1

Bolt Torque Specifications (N.m) / Boutwringkragspesifikasies (N.m)

Class/Klas	4.6		8.8		10.9		12.9	
Lubrication/ Smering	Wet/Nat	Dry/Droog	Wet/Nat	Dry/Droog	Wet/Nat	Dry/Droog	Wet/Nat	Dry/Droog
M6	4.8	6.0	9.0	11.0	13.0	17.0	15.0	19.0
M8	12.0	15.0	22.0	28.0	32.0	40.0	37.0	47.0
M10	23.0	29.0	43.0	55.0	63.0	80.0	75.0	95.0
M12	40.0	50.0	75.0	95.0	110.0	140.0	130.0	165.0
M14	63.0	80.0	120.0	150.0	175.0	225.0	205.0	260.0
M16	100.0	125.0	190.0	240.0	275.0	350.0	320.0	400.0
M18	135.0	175.0	260.0	330.0	375.0	475.0	440.0	560.0
M20	190.0	240.0	375.0	475.0	530.0	675.0	625.0	800.0
M22	260.0	330.0	510.0	650.0	725.0	925.0	850.0	1075.0
M24	330.0	425.0	650.0	825.0	925.0	1150.0	1075.0	1350.0
M27	490.0	625.0	950.0	1200.0	1350.0	1700.0	1600.0	2000.0
M30	675.0	850.0	1300.0	1650.0	1850.0	2300.0	2150.0	2700.0
M33	800.0	1150.0	1750.0	2200.0	2500.0	3150.0	2900.0	3700.0
M36	1150.0	1450.0	2250.0	2850.0	3200.0	4050.0	3750.0	4750.0

Table / Tabel 2

Lubrication Requirements / Smeringsvereistes

Application		Type	Process	Interval	Products
Gearboxes	Bevel gearboxes	Oiled	Replace	12M	Gear oil, Fuchs, Renep 1000
			Check	1D	
	Splitter gearboxes	Oiled	Replace	12M	
			Check	1D	
PTO driveshafts	UV-joints	Greased	Refresh	10H	Grease, Universal, Moly #2
	CV-joints	Greased	Refresh	10H	
	Telescopic tubes	Greased	Refresh	20H	
Auxiliary drives	Intermediate shafts	Greased	Refresh	10H	
	Spindles	Greased	Replace	12M	Grease, Fuchs, HT Lithium M2
			Refresh	10H	
	Bearing housings	Greased	Replace	3M	
			Refresh	10H	
	Bearing units	Greased	Refresh	20H	Grease, Universal, Moly #2
Wheels	Wheel bearings	Greased	Refresh	1W	
Pivot points	Pins and bushes	Greased	Refresh	10H	
		Oiled	Refresh	10H	Machine oil, Universal
	Ball joints	Greased	Refresh	10H	Grease, Universal, Moly #2
		Oiled	Refresh	10H	Machine oil, Universal
Adjusters / Levers	Threaded rods / Leadscrews	Greased	Refresh	20H	Grease, Universal, Moly #2
		Oiled	Refresh	20H	Machine oil, Universal

TROUBLESHOOTING

General troubleshooting

The table below (Troubleshooting Guide - ENG) offers guidance in remedying commonly encountered problems. If a remedy is not possible, further assistance should be sought from an authorised Falcon dealer.

FOUTOPSPORING

Algemene foutopsporing

Die tafel onder (Foutopsporingsgids - AFR) bied riglyne vir die oplos van probleme wat algemeen voorkom. As ’n fout nie reggestel kan word nie, moet verdere hulp van ’n gemagtigde Falcon-handelaar bekom word.

Troubleshooting Guide – ENG		
Observation	Probable cause	Available remedy
Uneven cut	Implement not level	Adjust operating height
	Worn, damaged or bent blades	Sharpen/replace blades
Poor swath control	Material build-up / clogging under deck	Clean
	Insufficient forward speed	Increase forward speed
	Excessive discharge rates (Blowing)	Consider alternative blade selection
	Wet/damp material	Await suitable conditions
Mechanical noise	Loose components	Check all fasteners for tightness
	Low gearbox oil level	Check and adjust oil levels
	Loss of blade timing (Blade contact)	Check and adjust
Rapid blade wear	Blade contact with ground	Adjust operating height
	Incorrect PTO speed	Maintain specified PTO speed
	Incorrect forward speed	Adjust forward speed
Poor cut quality	Excessive forward speed	Adjust forward speed
	Defective friction clutch	Maintain/adjust as necessary
	Worn blades	Sharpen/replace blades
Excessive vibration	Damaged/worn cutting gear	Replace damaged/worn parts
	Damaged/worn PTO driveshaft	Replace damaged/worn parts

Foutopsporingsgids - AFR		
Waarneming	Waarskynlike oorsaak	Beskikbare regstelling
Oneweredige snit	Implement nie gelyk nie	Verstel snyhoogte
	Geslyte, beskadigde of gebuigde lemme	Slyp/vervang lemme
Swak windrykontrole	Materiaal-opbou onder dek	Maak skoon
	Onvoldoende vorentoespoed	Verhoog vorentoespoed
	Oormatige materiaalontlading (Blaas)	Oorweeg alternatiewe lemme
	Nat/klam materiaal	Wag vir geskikte toestande
Meganiese geraas	Los komponente	Maak seker alle boute ens. is vas
	Ratkasolievlak laag	Maak seker olievlakke is reg
	Verlies van lemtydreëling (Lem kontak)	Herstel/verstel soos nodig
Vinnige lemslytasie	Lemkontak met grond	Verstel snyhoogte
	Verkeerde kragaftakkeras-spoed	Hou by korrekte kragaftakkeras-spoed
	Verkeerde vorentoe-spoed	Verstel vorentoe-spoed
Swak snitgehalte	Te hoë vorentoe-spoed	Verstel vorentoe-spoed
	Defekte wrywingkoppelaar	Herstel/verstel soos nodig
	Geslyte lemme	Slyp/vervang lemme
Uitermatige vibrasie	Beskadigde/geslyte snymeganisme	Vervang beskadigde/geslyte onderdele
	Beskadigde kragaftakkeras	Vervang beskadigde/geslyte onderdele

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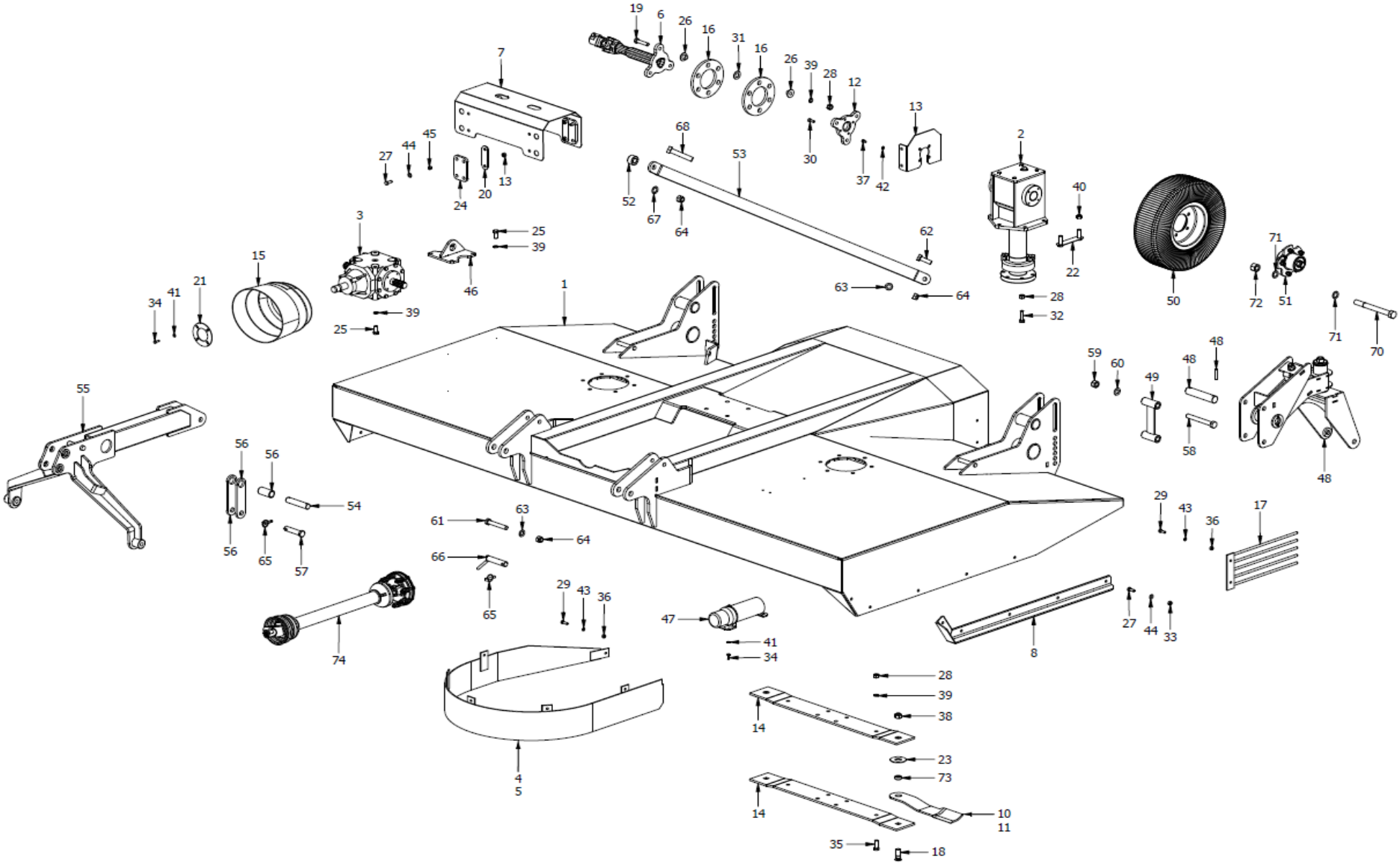
F60-350V Haymaker
A0098



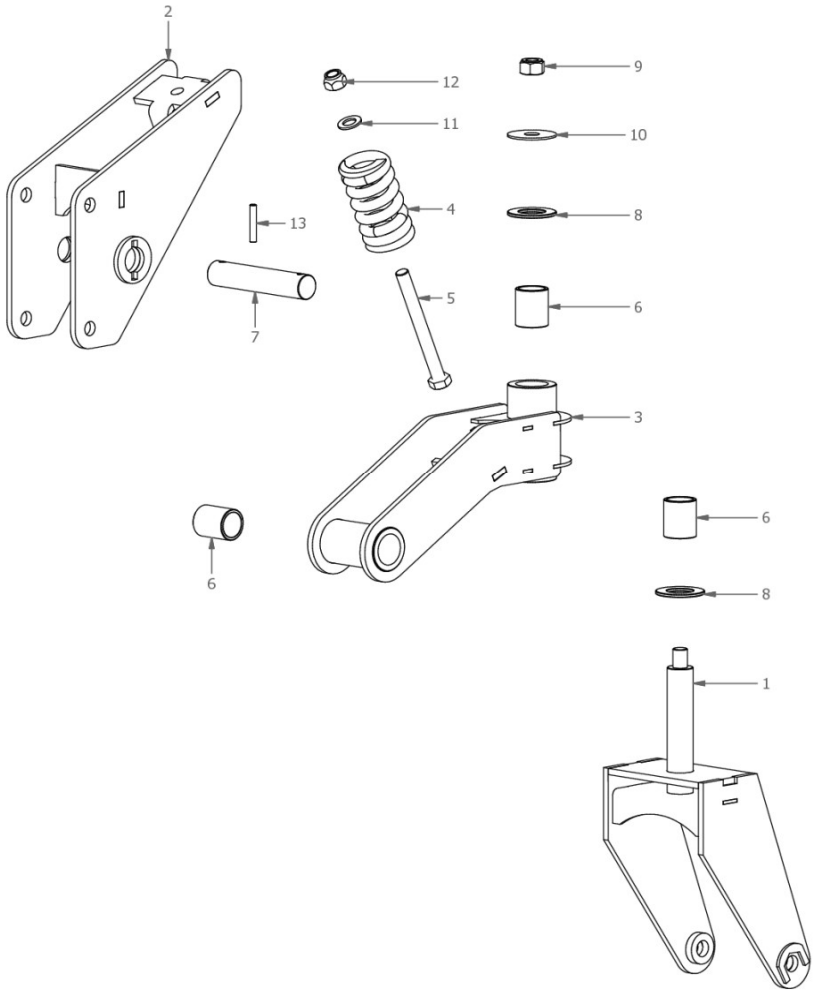
F60-350V Haymaker
A0098

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	H7800	Hull Painted A0098	1	41	M80803	Washer Flat M8 Galv	7
2	H2630	Gearbox F60XF 1:1.35 Falcon	2	42	M90813	Washer Spring M8 Galv	16
3	T279A-927901600	Gearbox Comer T279A 1:1.35	1	43	M91002	Washer Spring M10 Galv	16
4	H7708	Scroll Left A0099	1	44	M81202	Washer Flat M12 Galv	42
5	H7709	Scroll Right A0099	1	45	H5345	Bush 12.5x15.8x11 Galv	32
6	H7710	Shaft Intermed Comer	2	46	H5307	Lifting bracket Gearbox T279A	1
7	H7712	Cover Intermed shaft 2.0 MS PLB4	2	47	M8450	Owner Manual Holder	1
8	H7704	Side protector Left	1	48	H0745A	Wheel Assembly Complete 350V	2
9	H7705	Side protector Right	1	49	H3745	Bracket Wheel Adjustment	2
10	H1460 RH	BLADE 8x90x(425)-32.5 CC	2	50	M3799	Wheel Laminated 21x6.00-5	2
11	H1460	BLADE 8x90x(425)-32.5	2	51	H3800A	Hub Assy 5-0.5in@D5.5in	2
12	H5347	Profile 16.0 MS PLB0	2	52	H7833	Hitch Bush	1
13	H5339	Bracket Galv	4	53	H7810	Mast Stay	2
14	H1452	Blade beam 10x130x(945)-20SQ	4	54	H7828	Pin D30x145-121 Galv	1
15	M5360	PTO Counter-cone Comer 190.000.535	1	55	H7840	Top Mast Cat 2/3	1
16	M5351	Diaphram M16-PCD165	4	56	H7830	Break Link	1
17	H0869	Fingers 80-350V	2	57	H0632	Pin Top link Cat2	1
18	M51963	Blade bolt 3/4UNCx2-1/2 CSK-10.9 Black	4	58	M422180	Bolt M22x180 HT Galv	4
19	M41675	Bolt M16x75 HT Galv	12	59	M62222	Nut Nyloc M22 Galv	4
20	H5343	Nut set M12-2 Galv	8	60	M82203	Washer 22x40x3.0 galv	4
21	M5579	Plate 4-M8@PCD105 2.0 MS PLB0 Galv	1	61	M120125	Set Bolt M20x125mm Galv	2
22	H2614	Ganged bolts M16Fx50 Galv	6	62	M42060	Bolt M20x60 HT Galv	2
23	M83304	Washer 80x33x4 (Spacer)	4	63	M82001	Washer Flat M20	4
24	M5341	Damper Rubber	8	64	N20200201	Nut Nyloc M20	5
25	M41635	Bolt M16x35 HT Galv	8	65	FLP11	Lynchpin 11mm	3
26	H5328	Bush Stepped Galv	24	66	H7115	Pin Btm link Cat2 125mm	2
27	M41230	Bolt M12x30HT Galv	42	67	M82402	Washer M24 Galv	1
28	M31612	Nut M16 Galv	24	68	M424120	Nut Nyloc M24	1
29	M41030	Bolt M10x30HT Galv	16	69	M60809	Nut Nyloc M8 Galv	3
30	M3945	Cap Screw M10x25	9	70	M419250	Bolt 1"x10"UNF Galv HT	2
31	M5350	Washer 24.5x45x3.0 Galv	12	71	M82503	Washer Flat 1.0in Galv	4
32	M41655	Bolt M16x55 HT Galv	8	72	M32515	Nut 1" UNF Galv	2
33	M61209	Nut Nyloc M12 Galv	10	73	H71914	Bush 32x19.5x14	4
34	M40825	Bolt M8x25HT Galv	7	74	T601010N112F42	PTO shaft T60 960 112 F22	1
35	M41645	Bolt M16x45 HT Galv	4	75	M3187	Decal ATTENTION If your tractor is	1
36	M31007	Nut M10 Galv	16	76	M3171	Decal Baie Belangrik Alvorens U Die	1
37	M40815	Bolt M8x16HT Galv	16	77	M3168	Decal Bird FALCON Large	3
38	M61921	Nut Nyloc 3/4"UNC CSK	4	78	M3176	Decal Bird Falcon Meduim	4
39	M91604	Washer Spring M16 Galv	24	79	M3172	Decal DANGER STAY AWAY - ROTATING.....	2
40	M61616F	Nut Nyloc M16F Galv	12	80	M3365	Decal F60/350V Haymaker	1

F60-350V Haymaker
A0098

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
81	M3174	Decal IMPORTANT WHEN LOADING.....	2				
82	M3175	Decal PROUD TO BE SOUTH AFRICAN	1				
83	M3170	Decal VERY IMPORTANT BEFORE USING.....	1				
84	M3353	Decal 15km 100mm	2				
85	M3173	Decal Lifting hook	5				
86	M3195	Decal Grease Point	2				

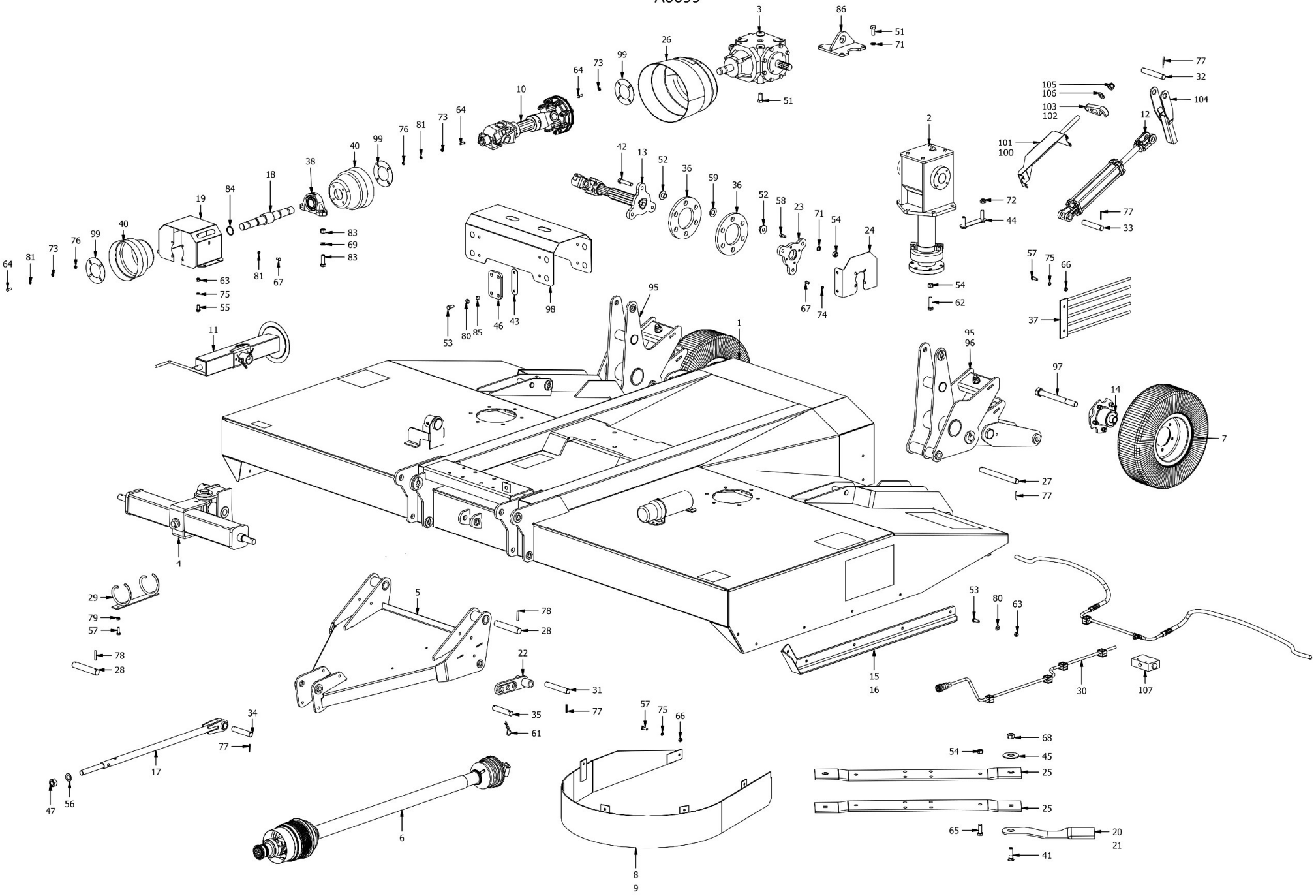
Wheel Assembly Complete F60-350V
H0745A



Item	Part No.	Description	Qty
1	H3784	Wheel fork complete	1
2	H3773	Mounting complete	1
3	H3778	Swingarm complete	1
4	M3792	Spring 16x80x150-7AC	1
5	M420200	Bolt M20x200	1
6	H3872	Bush 40.3x50x60	4
7	H3791	Pin Swingarm pivot 189mm	1
8	H3793	Washer-70x40x5-Vesconite	2
9	M62222	Nut Nyloc M22	1
10	M3794	Washer-70x22x5	1
11	M82001	Washer Flat M20	1
12	N20200201	Nut Nyloc M20	1
13	M3789	Sellock Pin D10x60	2

A/R = As required

F60-350VT Haymaker
A0099



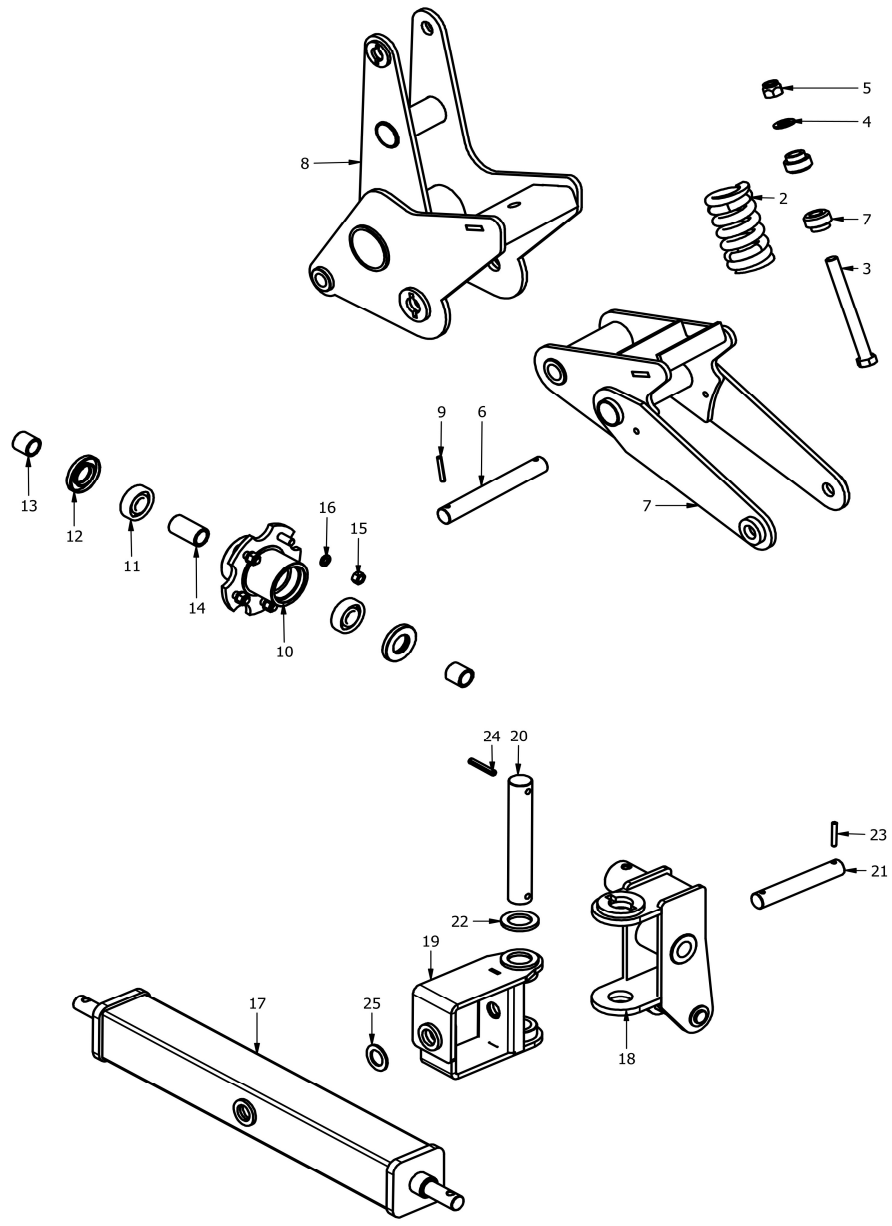
F60-350VT Haymaker
A0099

Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
1	H7700A	Hull Painted A0099	1	41	M51963	Blade bolt 3/4UNCx2-1/2 CSK-10.9 Black	4
2	H2630	Gearbox F60XF 1:1.35 Falcon	2	42	M41675	Bolt M16x75 HT Galv	12
3	T279A-927901600	Gearbox Comer T279A 1:1.35	1	43	H5343	Nut set M12-2 Galv	8
4	H7701	Hitch Linkage drawbar Cat2	1	44	H2614	Ganged bolts M16Fx50 Galv	6
5	H5433	Drawbar A0086	1	45	M83304	Washer 80x33x4 (Spacer)	4
6	78611210EN00204	PTO CV T60 1210 Comer EN2049	1	46	M5341	Damper Rubber	8
7	M3799	Wheel Laminated 21x6.00-5	2	47	M32418	Nut M24 Galv	2
8	H7708	Scroll Left A0099	1	48	M7781	Bracket Hyd manifold 3.0 MS PLB2 Galv	1
9	H7709	Scroll Right A0099	1	49	M42525	Nut 1.0in UNF Galv	2
10	T600352S112F22	Shaft Intermed Comer T60 0.352	1	50	Elbow 90deg	Elbow 90deg-Metric Tube 12	1
11	H0710	Parking jack 500mm Inc bush + pin	1	51	M41635	Bolt M16x35 HT Galv	8
12	H7711	Cylinder Hyd DB20010-106	2	52	H5328	Bush Stepped Galv	24
13	H7710	Shaft Intermed Comer	2	53	M41230	Bolt M12x30HT Galv	42
14	H3800A	Hub Assy 5-0.5in@D5.5in	2	54	M31612	Nut M16 Galv	24
15	H7704	Side protector Left	1	55	M41225	Bolt M12x25 HT Galv	4
16	H7705	Side protector Right	1	56	M82402	Washer M24 Galv	1
17	H5411	Tie-rod M24x1070	1	57	M41030	Bolt M10x30HT Galv	18
18	H0790	Shaft Intermediate T60 A0099	1	58	M3945	Cap Screw M10x25	9
19	H7729	Cover Bearings	1	59	ML5350	Washer 24.5x45x3.0 Galv	12
20	H1460 RH	BLADE 8x90x(425)-32.5 CC	2	60	M7426	Nut Ferrule 3/8 12mm	1
21	H1460	BLADE 8x90x(425)-32.5	2	61	M5235	R-clip 4mm	2
22	H7707	Height adjuster Drawbar Galv	2	62	M41655	Bolt M16x55 HT Galv	8
23	H5347	Profile 16.0 MS PLB0	2	63	M61209	Nut Nyloc M12 Galv	14
24	H5339	Bracket Galv	4	64	M40825	Bolt M8x25HT Galv	12
25	H1452	Blade beam 10x130x(945)-20SQ	4	65	M41645	Bolt M16x45 HT Galv	4
26	M5360	PTO Counter-cone Comer 190.000.535	1	66	M31007	Nut M10 Galv	16
27	H7715	Pin D25x261-243 Galv	2	67	M40815	Bolt M8x16HT Galv	10
28	H5422	Pin D30x167-143 Galv	3	68	M61921	Nut Nyloc 3/4"UNC CSK	4
29	H5580	Guide Hyd pipes 2-D100 Galv	1	69	M81602	Washer Flat M16x40x2	4
30	M7780	Kit Hydraulic Fixed A0099	1	70	M1416	Split pin B5x60	2
31	H7716	Pin D25x157-139 Galv	2	71	M91604	Washer Spring M16 Galv	16
32	H5418	Pin D25x151-133 Galv	2	72	M61616F	Nut Nyloc M16F Galv	12
33	H7714	Pin D25x131.5-113.5 Galv	2	73	M80803	Washer Flat M8 Galv	12
34	H5425	Pin D25x131-113 Galv	1	74	M90813	Washer Spring M8 Galv	8
35	H5423	Pin D25x125-107 Galv	2	75	M91002	Washer Spring M10 Galv	20
36	M5351	Diaphram M16-PCD165	4	76	M31008	Nut M8 Galv	8
37	H0869	Fingers 80-350V	2	77	M5593	Roll pin M6x40	19
38	M3504	Bearing UCP 208	2	78	M5594	Roll pin M8x50	6
39	M7431	Coupler hydraulic 1/2" BSP Female Pin	1	79	M61007	Nut Nyloc M10 Galv	2
40	M1141	PTO counter cone Comer	2	80	M81202	Washer Flat M12 Galv	42

F60-350VT Haymaker
A0099

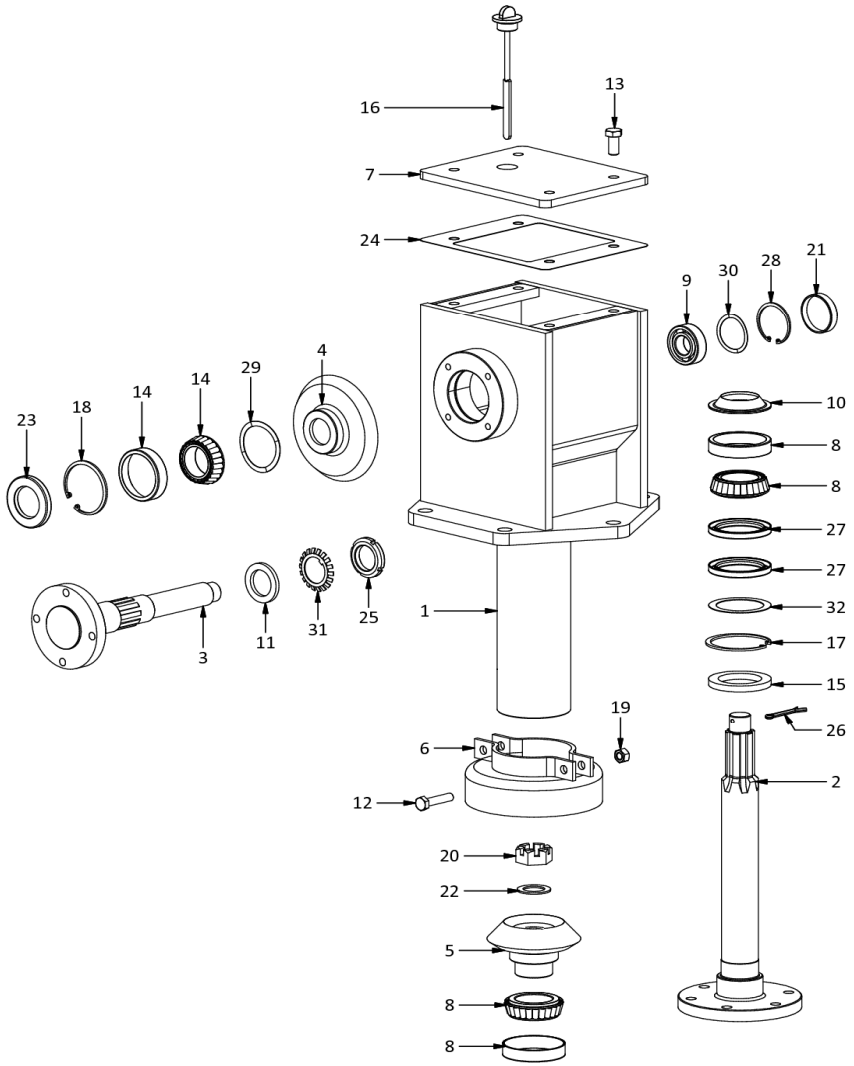
Item	Part No.	Description	Qty	Item	Part No.	Description	Qty
81	M90802	Washer Spring M8	10				
82	ISO 4034 - M14	Hex Nut	1				
83	M11650	Bolt & Nut M16 x 50 Galv	8				
84	M3845A	Circlip Outer 2x40mm	2				
85	H5345	Bush 12.5x15.8x11 Galv	32				
86	H5307	Lifting bracket Gearbox T279A	1				
87	M3003	Serial plate Metal FALCON	1				
88	M3175	Decal PROUD TO BE SOUTH AFRICAN	1				
89	M3171	Decal Baie Belangrik Alvorens U Die	1				
90	M3170	Decal VERY IMPORTANT BEFORE USING.....	1				
91	M3172	Decal DANGER STAY AWAY - ROTATING.....	2				
92	M3353	Decal 15km 100mm	2				
93	M3168	Decal Bird FALCON Large	3				
94	M8450	Owner Manual Holder	1				
95	H7832A	Wheel Assembly Right	1				
96	H7831A	Wheel Assembly Left	1				
97	M419250	Bolt 1"x10"UNF Galv HT	2				
98	ML10261	Cover Intermed shaft 2.0 MS PLB4	2				
99	ML5579	Plate 4-M8@PCD105 2.0 MS PLB0 Galv	3				
100	H7836	Bracket Cut height	1				
101	H7837	Bracket Cut height LH	1				
102	H7838	Spacer Cut height 25mm	5				
103	H7839	Spacer Cut height 25mm	5				
104	H7706	Cylinder lock Galv	2				
105	N20200201	Nut Nyloc M20	2				
106	M82001	Washer Flat M20	2				
107	M7432	Flow Divider 50/50	1				

A0099 Wheel Carrier / Wheel Hub / Drawbar
H7831A / H7832A / H3800A / H7701



Item	Part No.	Description	Qty
2	M3792	Spring 16x80x150-7AC	1
3	M420200	Bolt M20x200 Galv	1
4	M82001	Washer Flat M20	1
5	N20200201	Nut Nyloc M20	1
6	H7829	Pin D30x236-212 Galv	1
7	H7817	Swingarm	1
8	H7816A	Wheel Mount Left	1
9	M5594	Roll pin M8x50	2
10	H3887	Hub Fabricated	1
11	M3877	Bearing deep groove RMS-8	2
12	M3876	Seal 35x72x10mm	2
13	H3878	Bush 26x35x33mm	2
14	H3879	Bush 26x35x62mm	1
15	M31310	Nut 1/2" UNF	5
16	M91213	Washer Spring M12 Galv	5
17	H7728	Drawbar	1
18	H7727	Hitch housing	1
19	H7726	Hitch clevis	1
20	H7725	Pin D40x254-224 Galv	1
21	H7719	Pin D30x186-162 Galv	1
22	ML7772	Washer 40.5x64x6 6.0 MS PLB0 Galv	1
23	M5594	Roll pin M8x50	2
24	M5248	Roll pin 10x65	2
25	ML7774	Washer 30.5x50x3 Galv	2

Gearbox F60XF
H2630



Item	Part No.	Description	Qty
1	H2635	Housing Extended F60X	1
2	H2634	Shaft Output F60X	1
3	H2631	Shaft Input F60VF/XF	1
4	H2609	Gear Bevel Z27/z10	1
5	H2608	Gear Bevel Z20/z6	1
6	H2637	Dust cover F60X	1
7	M2624	Cover	1
8	M1333	Bearing Tapered roller 32009	2
9	M1371	Bearing Deep groove 6205	1
10	H1378	Retainer Domed	1
11	H2633	Washer 35x52x5	1
12	M41045	Bolt M10x45HT	2
13	M41025	Bolt M10x25HT	4
14	M1332	Bearing Tapered roller 32008	1
15	M1326	Seal Felt	1
16	M1334	Plug + Dipstick	1
17	M1375	Circlip Internal INT0750	1
18	M1374	Circlip Internal INT0680	1
19	M31007	Nut M10	2
20	M1319	Nut Slotted 1 UNF	1
21	M1369	Plug Welsh type 52x10	1
22	M1343	Washer 40x26x2	1
23	M1361	Seal Radial lip 68x40x8	1
24	M2617	Gasket F60	1
25	M2634	Locking nut KM7	1
26	M1416	Split pin B5x60	1
27	M1366	Seal Radial lip 75x55x8	2
28	M1372	Circlip Internal INT0520	1
29	M1365	Load washer Wave type EPL50	1
30	M1364	Load washer Wave type EPL44	1
31	M2635	Locking washer MB7	1
32	M1368	Seal protector	1
33	M3231	Gear oil Renolin CLP1000	A/R

A/R = As required