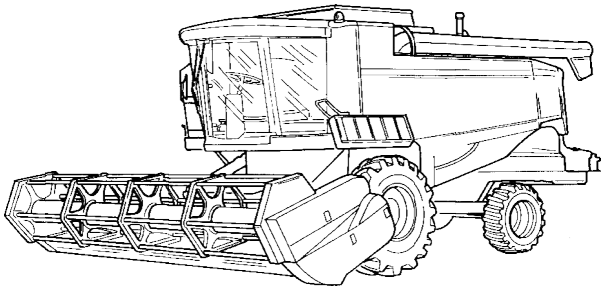

BETA 7360

BETA 7360 PL

BETA 7370

BETA 7370 PL

Note: *Some of the models mentioned in this manual may not be marketed in your country.*

For more details, contact your dealer.

WORKSHOP
SERVICE
MANUAL

MASSEY FERGUSON

AGCO
Your Agriculture Company

CONTENTS

Sections

MASSEY FERGUSON

MODEL	MODEL IDENTIFICATION CODE
BETA 7360	**X5**
BETA 7360 PL	**X5AL**
BETA 7370	**X6**
BETA 7370 PL	**X6AL**

DESCRIPTION OF COMBINE IDENTIFICATION NUMBER

ES.: ✳ **5640** (a) ✳ **564 0 00001** (b + c = d) ✳

a Technical type

d Identification number: **564000001**

It is made up of two parts:

- Part 1 **(b)**, made up of 4 digits “5640”, identifies the technical type (machine model).
- Part 2 **(c)**, made up of 5 digits “00001” which increase in numerical order of production and identify the sequential number of the machine model produced.

✳ **5539** ✳ **553 9 . . . . .** ✳ FOR MODEL **BETA 7360**

✳ **5540** ✳ **554 0 . . . . .** ✳ FOR MODEL **BETA 7360 PL**

✳ **5640** ✳ **564 0 . . . . .** ✳ FOR MODEL **BETA 7370**

✳ **5641** ✳ **564 1 . . . . .** ✳ FOR MODEL **BETA 7370 PL**

FREE FLOW GRAIN HEADER IDENTIFICATION NUMBER

711 6 . . . . . FOR MODEL **16 ft (m 4,80)**

711 8 . . . . . FOR MODEL **18 ft (m 5,40)**

712 . . . . . . FOR MODEL **20 ft (m 6,00)**

712 3 . . . . . FOR MODEL **23 ft (m 7,00)**

712 5 . . . . . FOR MODEL **25 ft (m 7,60)**

Section 00 – GENERAL INFORMATION

GENERAL INSTRUCTIONS

IMPORTANT NOTE

All repair and maintenance works described in this manual mu st be carried out only by the AGCO Service Network, strictly complying with the instructions given and using, w henever required, the special tools.
Anybody who carries out the above operations without scrupu lously complying with the instructions shall be held personally liable for any damage caused as a result of their a ctions.

ADJUSTMENT SHIMS

During any adjustment, select the adjustment shims by measu ring them individually with a micrometer and then adding up the values obtained: do not rely on the incorrect me asurement of the total shim pack or on the nominal value given for each ring.

ROTARY SHAFT SEALS

For correct rotating shaft seal installation, proceed as fo llows:

- before fitting the seals, soak them for at least half an hou r in the same oil they will be sealing;
- thoroughly clean the shaft and make sure that the shaft wor king surface is not damaged;
- move the the sealing lip towards the fluid; in the case of a h ydrodynamic sealing lip the grooves must face in such a way that, considering the shaft rotation direction, t he fluid is taken back towards the inner part of the seal;
- smear a thin layer of lubricant on the sealing lip (oil rath er than grease) and fill the gap between the sealing lip and the dust lip with grease on twin lip seals;
- fit the seal in the relevant housing by pressing it or using a drift with a flat contact surface; do not beat it with a hammer or a mallet;
- during driving, make sure the seal is perpendicular to its housing and, when driving is finished, make sure it touches the shoulder;
- to prevent the sealing lip from getting damaged by the shaf t, lay down suitable protection when fitting both parts.

O–RINGS

Lubricate O–rings before fitting them in their seats to pre vent them from rolling over and twisting during fitting, thu s jeopardizing their sealing action.

SEALANTS

Before laying the sealant on the mating surfaces, prepare th em as follows:

- remove any scales with a wire brush;
- thoroughly degrease the surfaces with one of the followin g cleansers: trichloroethylene, oil, or a solution of water and soda.

COTTER PINS

While fitting split spring pins, make sure that their groove is directed towards the effort direction, stressing the pin. Spiral spring pins do not need any orientation during fittin g.

REMARKS ABOUT SPARE PARTS

Only use **genuine AGCO parts**.

Only genuine parts guarantee the same quality, life and safe ty as original parts because they are the same as those fitted as standard.
Only **genuine AGCO parts** can offer this guarantee.
All spare parts orders must be accompanied by the following d ata:

- machine model (commercial name) and frame number;
- combine type and number;
- part number of the ordered part, which can be found in the "S pare Part Catalogue", used for order processing.

REMARKS ABOUT TOOLS

The tools that AGCO suggests and describes in this manual:

- have been expressly studied and designed to operate on the AGCO range of combine harvesters;
- are required to get a reliable repair;
- are suitably manufactured and strictly tested to offer efficient and long–lasting work tools.

By using these tools, Repair Personnel will benefit from:

- working in the best technical conditions;
- getting the best results;
- saving time and effort;
- working more safely.

CAUTION

Wear limit values indicated for certain parts should be cons idered as recommended values, but not absolutely mandatory. The directions "front", "rear", "right" and "le ft" referring to different parts are given from the viewpoin t of the operator sitting in the driver's seat and facing the sa me direction as the combine moving forward.

HOW TO MOVE THE COMBINE WITHOUT BATTERY

The cables of the external power supply unit must be connecte d only to the respective negative and positive cable terminals of the combine using pliers in good working order t hat will ensure proper and stable contact.
Disconnect all circuits (lights, windscreen wipers, etc.. .) before starting the combine.
If functional checks need to be run on the combine's electric al system, only proceed after connecting the power supply unit. At the end of the checks, disconnect all the circ uits and switch the power supply off before disconnecting the cables.

SAFETY REGULATIONS

PAY ATTENTION TO THIS SYMBOL

This warning symbol points out important messages involvin g your personal safety. Carefully read all the suggested safety precautions to avoi d potential hazards and safeguard your health and personal safety.
In this manual you will find this symbol together with the fol lowing key words:

WARNING *– For warnings aimed at preventing unsuitable repair work b eing carried out that may put the operator's safety at risk.*

DANGER *– For warnings that specifically point out potential hazar ds for the operator's safety or for other persons directly or indirectly involved .*

AVOID ACCIDENTS

Most accidents and injuries occurring in workshops are due to the lacked compliance with some simple and fundamental caution and safety rules. For this reason, IN MOST CASES THEY CAN BE PREVENTED: just consider the possible causes in advance and act consequently, with the required caution and care.

Accidents may occur with any kind of machine, regardless of how well the machine in question was designed and built.

An alert and cautious mechanic is the best guarantee against accidents.

Strict observance of just one basic safety rule is sufficient to avoid many serious accidents.

DANGER. Never carry out any cleaning, lubrication or maintenance operation when the engine is running.

SAFETY REGULATIONS

General information

◊ Strictly comply with the specified maintenance and repair procedures.

◊ Never wear rings, watches, jewellery, loose or unbuttoned clothing such as ties, torn clothes, scarves, open jackets or shirts with open zips which could get trapped in moving parts. It is recommended that you wear appropriate approved protective clothing and equipment, such as anti-slip footwear, gloves, safety goggles, helmets, etc.

◊ Never carry out any repair work on the machine with someone sitting in the driver's seat unless they are qualified operators assisting with the operation to be carried out.

◊ Never operate the machine or use the relevant tools from any position other than sitting in the driver's seat.

◊ Never carry out any intervention on the machine when the engine is running, except when specifically instructed to do so.

◊ Stop the engine and make sure all pressure has been relieved from hydraulic circuits before removing caps, covers, valves, etc.

◊ All service interventions must be carried out with the utmost care and attention.

◊ Service stairs and ladders used in the workshop or in the field should be built in compliance with the safety regulations in force.

◊ Disconnect the batteries and label all controls to warn that the machine is being serviced. Lock the machine and all the equipment to be lifted.

◊ Never check or fill fuel tanks, accumulator batteries, or use starting fluid while smoking or near to naked flames, as these fluids are flammable.

◊ Brakes are ineffective when manually released for service interventions: in these cases, make sure you keep the machine under control using suitable chocks or similar blocking devices.

◊ The fuel supply gun must always stay in contact with the filler neck: Maintain this contact until the fuel supply stops to prevent sparks due to static electricity build-up.

◊ Use only the prescribed points for towing the machine. Make the connections with the utmost care: make sure that the relevant pins and/or catches are securely tightened before towing. Never remain near to towing bars, cables or chains that are operating under load.

◊ To transfer a machine that has broken down, use a trailer or a low loading platform trailer, when available.

◊ To load and unload the machine from the recovery vehicle, select a flat area providing firm support for the wheels of the trailer or truck. Securely fasten the machine to the platform of the truck or the trailer and lock the wheels as required by the shipping agent.

◊ For electrical heaters, battery–chargers and similar equipment, only use auxiliary power supplies providing an efficient ground to avoid electric shock hazards.

◊ While lifting or carrying heavy parts, use hoists and similar equipment with sufficient capacity.

◊ Pay special attention to anyone who is nearby.

◊ Never pour gasoline or diesel oil in open, wide and low containers.

◊ Never use gasoline, diesel oil or other flammable liquids as cleansers: use non–flammable and non–toxic commercial solvents.

◊ Wear goggles with side guards while cleaning parts with compressed air.

◊ Reduce air pressure according to the local or national regulations in force.

◊ Never operate the machine in closed areas without proper ventilation.

◊ Do not smoke, use naked flames or cause sparks when refilling or handling highly flammable materials.

◊ Do not use flames as light sources when servicing the machine or checking for possible “leaks“.

◊ Move with caution when working under the machine, on the machine or near the machine. Wear the prescribed safety equipment: helmets, special goggles and shoes.

◊ During checks that are carried out with the engine running, ask an operator to sit in the driver’s seat and keep the service technician under constant visual control at any time.

◊ In the event of service operations that need to be carried out outside the workshop, drive the combine to a flat area and secure it. If work on hillsides cannot be avoided, first secure the machine and move it to level ground, as soon as you can do it within a given safety margin.

◊ Dented and bent chains or ropes are not reliable: do not use them for lifting or towing. Always use suitable protective gloves when handling chains or cables.

◊ The chains must be tightly fastened: make sure the fastening device is strong enough to hold the load. No people should stand next to the towing connection, chains or ropes.

◊ The area for service operations should always be kept CLEAN and DRY. Immediately remove any water deposits or oil stains.

◊ Do not pile up oil or grease–soaked rags: they are a major fire hazard. Always place them in a closed metal container.
Before starting the machine or an equipment check, adjust and lock the operator’s seat. Make sure nobody is standing within the machine or equipment operating range.

◊ Do not carry any object in your pockets that could accidentally fall into the machine’s inner compartments.

◊ Whenever there is a risk that you might be hit by projecting metal parts and similar objects, wear an eye mask or goggles with side shields, helmets, special footwear and heavy gloves.

◊ During welding operations, use the special safety guards: dark goggles, helmets, overalls, special gloves and footwear. Dark goggles must also be worn by anyone who is not carrying out the work but is standing near the operator carrying out the welding operations. NEVER LOOK DIRECTLY AT THE WELDING ARC WITHOUT SUITABLE EYE PROTECTION.

◊ Metal cables, when used, get frayed: always wear suitable protection while handling them (heavy gloves, goggles, etc.).

◊ Handle all parts with the utmost care. Keep your hands and fingers away from gaps, gears and similar dangers. Always wear the approved protection devices, such as safety goggles, safety gloves and shoes.

Start–up

◊ Never run the engine in closed areas without suitable ventilation systems to remove exhaust gases.

◊ Never put your head, body, arms, legs, feet, hands or fingers near fans or rotating belts.

Engine

◊ Before removing the radiator cap, loosen it very slowly to relieve pressure from the system. Coolant top–ups must be made only when the engine has stopped or is idling, if hot.

◊ Never fill up the fuel tank when the engine is running, especially if it is hot, to prevent starting fires in the event of fuel leaks.

◊ Never try to check or adjust the fan belt tension when the engine is running.
Never adjust the fuel injection pump when the machine is moving.

◊ Never lubricate the machine when the engine is running.

Electrical Systems

◊ When using auxiliary batteries, remember that the cables on both sides must be connected as follows: (+) with (+) and (–) with (–). Do not short–circuit the terminals. GAS RELEASED FROM BATTERIES IS HIGHLY FLAMMABLE. During recharging, leave the battery compartment open for an improved ventilation. Never check the battery charge with "jumpers" obtained by laying metal objects on the terminals. Avoid sparks or flames in the area surrounding the batteries. Do not smoke to prevent explosion hazards.

◊ Before any intervention, check there are no fuel or power leaks: eliminate these leaks before going on with the work.

◊ Never recharge the batteries in closed areas:make sure there is enough ventilation to prevent accidental explosions due to the build–up of gases released while charging.

◊ Always disconnect the batteries before any intervention on the electrical system.

Hydraulic Systems

◊ Fluid escaping from a very small hole can be almost invisible and can be strong enough to penetrate the skin. For this reason, use a piece of cardboard or wood when checking. DO NOT USE BARE HANDS: if a jet of fluid penetrates the skin, contact a doctor immediately. If no immediate medical care is given, severe infections or dermatosis could occur.

◊ Use suitable instruments to check the system pressures.

Wheels and tyres

◊ Make sure that tyres are correctly inflated to the pressure specified by the manufacturer.
Regularly check possible damages to rims and tyres.

◊ Stay away from and to one side of the tyre when adjusting tyre pressures.

◊ Check the pressures only when the machine is unladen and the tyres are cool to prevent obtaining any wrong measurements due to overpressure. Never use parts of recovered wheels as improper welding, brazing or heating could have weakened them and could cause breakages.

◊ Never cut or weld a rim with a tyre that is fitted and inflated.

◊ To remove the wheels, secure both the front and rear wheels. After lifting the machine, to prevent it from falling, arrange suitable supports underneath in accordance with the regulations in force.

◊ Deflate the tyre before removing any object caught in the tread.

◊ Never inflate tyres using flammable gases as they may cause explosions and injuries to people nearby.

Removal and refitting

◊ Lift and handle all heavy parts using suitably sized lifting equipment. Make sure all the parts are secured using the appropriate slings and hooks. Use the correct eye bolts. Extra care should be taken if anyone is near the load to be lifted.

◊ Handle all parts with great care. Do not put hands and fingers between the pieces. Wear appropriate safety clothing – safety goggles, gloves and shoes.

◊ Do not twist metal chains or ropes. Always wear safety gloves when handling cables or chains.

PROPER USE

The combines X5, X5AL, X5BL, X6 and X6AL are designed as self--propelled units with a diesel engine.

The machines are manufactured exclusively for usual agricu ltural purposes, i.e. for harvesting cereal, seed, rice, maize, soya, etc. by cutting or picking–up the crop, thresh ing and separating the grains from the ears, delivering the grains in the grain tank and unloading them into the grain wag on.

When operating the machine, make sure the cab doors are shut. The operator and instructor, if present, must remain seated in their respective seats with their seatbelts faste ned (the operator should not drive the machine when standing).

The machines may be operated only by skilled personnel, who a re thoroughly familiar with all the machine's functions and harvesting techniques.

Machine stability is guaranteed on the following inclinati ons provided that the ground is firm and the tyres offer sufficient grip:

- **30%** (18 °) longitudinal and crosswise.

The X5AL, X5BL and X6AL versions, with the levelling system e ngaged, on reasonably firm terrain, can automatically (or manually) level the machine to horizonta l up to the following incline limits of the plane upon which the wheels stand:

– crosswise	**20%**
– longitudinal (only X5BL)	**30%** driving uphill **5%** driving downhill.

WARNING: *The combine may be transported on public roads only with an em pty grain tank.*

HEADER TYPES

The combines X5, X5AL, X5BL, X6 and X6AL can use cutting table s sized 4.80 – 5.40 – 6.00 – 7.00 or 7.60 m.

NOTE: *In this manual, the term "header/s" signifies both the cutti ng table and the maize header. The term "cutting table" refers to the assembly consisting of reel, cutting ba r, table auger, etc. used to harvest grain, barley, rice, soy a, etc. The term "maize header" refers to the assembly consisti ng of stalk grippers, stripping blades, conveyor chains, etc. used for harvesting maize.*

GENERAL FEATURES

	X5	X6
FEEDING DEVICE		
CUTTING TABLE	grain header	
– minimum and maximum cutting height mm	50 ÷ 1320	
– cutting width	16 ft (m 4.80), 18 ft (m 5.40), 20ft (m 6.00), 23 ft (m 7.00), 25 ft (m 7.60)	
– cutting frequency strokes/minute	1244	
– GSAX device	standard	
– auger	double–screw type with toothed torque limiter	
– retractable fingers	along the full width of the auger and fitted on self–lubricating bushes	
– diameter of retractable fingers mm	16	
– reel	six bar with closed spider frames	
– drive	hydraulic motor–driven chain	
– vertical and horizontal positioning	electrohydraulically operated	
– speed variator	hydraulically operated (speed 0–55 rpm)	
ELEVATOR	multi–purpose type	
– lower roller	floating	
– feed roller (PFR)	with parallel fingers and toothed torque limiter	
– feed roller fingers diameter mm	16	
– bar supporting chains no.	3	4
– bars no.	30	
– protection	spring–loaded safety clutch	
– upper shaft speed rpm	425	
– lower shaft speed rpm	622	
– elevator drive belt	3HB multiple V–belt	
THRESHING UNIT		
– stone trap	on the concave inlet which can be disconnected and removed (for inspection)	
grain/maize BEATER	with 8 beating bars and 8 backing bars	
– type for rice	12 toothed bars with cast iron support	
– housing width mm	1346	1600
– beater width mm	1331	1585
– diameter mm	600	
– variator	with two belts	
– variator control	electrohydraulic	
– rotation speed (loaded) rpm	380 ÷ 1100	430 ÷ 1210

	X5	X6
CONCAVE – control	independent front and rear opening, adjustable from the driver's seat	
– area ..... m^2	0.83	0.99
Cereal type: – clearance (between wire centres) ..... mm	14.1	
– wire arrangement ..... mm	alternately 403 and 630	
– wrap angle	106°	
– wire diameter ..... mm	3.5	
– total number of wires ..... no.	93	111
– bars ..... no.	12	
Maize type: – clearance (between wire centres) ..... mm	24	
– wrap angle	106°	
– wire diameter ..... mm	6	
– bars ..... no.	9	
Rice type: – threshing section ..... no.	1 (with three rows of spikes)	
– spikes ..... no.	77	90
– wrap angle	106°	
Universal type: – bars ..... no.	17	
– wire diameter ..... mm	6	
– wrap angle	102°	
CONCAVE EXTENSION (rake) – bars ..... no.	2	
– wrap angle	14°	
REAR BEATER – vanes ..... no.	4, removable from inside the grain tank	
– control	4HB powerband belt	
– speed ..... rpm	820	
REAR BEATER CONCAVE – concave wrap	52°	
– concave area ..... m^2	0.44	0.53
– bars ..... units	0.44 6	
– clearance ..... mm	104	
– wire diameter ..... mm	6	
– concave to rear beater clearance ..... mm	25	

	X5	X6
MULTI CROP SEPARATOR	electrically–adjustable concave position	
– tines ... no.	70	80
– diameter ... mm	600	
– width ... mm	1310	1565
– normal rotation speed ... rpm	750	
– reduced rotation speed ... rpm	410	
– control	V–belt	
MULTI–CROP–SEPARATOR CONCAVE	can be disconnected electrically	
– bars ... no.	8	
– wire diameter ... mm	6	
– wrap angle	57°	
– area ... m^2	0.46	0.54
– clearance ... mm	52	
– Multi Crop Separator to concave clearance . mm	25 ÷ 40	
STRAW WALKER ... no.	5	6
– grids and steps ... no.	5 and 4	
– length ... mm	4256	
– separation area ... m^2	5.73	6.81
– rotation speed ... rpm	177	
CLEANING UNIT		
FAN	with adjustable air capacity	
– rotation speed ... rpm	350 ÷ 1050	
– reduced rotation speed ... rpm	270 ÷ 840	
– vanes ... no.	4	
– control	V–belt	
MAIN GRAIN PAN	fixed, with front access for maintenance	
– movement	alternating, opposite to bottom sieve	
– control shaft ... cycles/min	315	
– control	double V–belts	
– grain pan width ... mm	1340	1600
– grain pan length ... mm	1723	
– grain pan area ... m^2	2.31	2.76
– grain pan rake area ... m^2	0.255	0.304
UPPER SIEVE	with adjustable sieve	
– upper sieve width ... mm	1340	1600
– upper sieve length ... mm	1963	
– upper sieve area ... m^2	2.63	3.14

	X5	X6
LOWER SIEVE	with adjustable sieve	
– lower sieve width mm	1340	1600
– lower sieve length mm	1525	
– lower sieve area m^2	2.04	2.44
RETURNS	to cylinder	
– conveyed by	returns auger and elevator	
– returns auger speed rpm	315	
GRAIN TANK		
– crop conveyed by	tank filling elevator and tank filling auger into the middle of the grain tank	
– auger unloading speed rpm	388	
– capacity litres	9000	
– unloading auger drive	powerband belt, chain and angle gear	
– safety clutch	shear bolt	
– length of unloading tube m	5.00	
– unloading speed litres/sec	105	
– unloading height mm	4450	
HYDRAULIC SYSTEM		
– oil tank capacity litres	36	
– table hydraulics pump oil flow litres/min	37.5	
– table control valve max. pressure bar	200	
– auxiliary hydraulics pump oil flow litres/min	4	
– auxiliary hyd. control valve max. pressure bar	85	
– hydrostatic steering pump oil flow litres/min	15.5	
– steering pump displacement cm^3/rev	125	
– max. pressure bar	140	
– anti–shock valve max. pressure bar	200	
– intake filter micron	150	
– return filter micron	16	

	X5	X6
HYDROSTATIC SYSTEM		
– oil tank capacity ..... litres	36	
– pump displacement ..... cm^3/rev	100	
– pump speed ..... rpm	2450	
– pressure relief valve setting ..... bar	420	
– motor displacement ..... cm^3/rev	100	
– return filter ..... micron	16	
– pressure filter ..... micron	10	
ENGINE		
– make	AGCO SISU POWER	
– type	7.4 AWI. 747	8.4 AWI. 708
– cylinders ..... no.	6	
– displacement ..... cm^3	7365	8419
– bore ..... mm	108	111
– stroke ..... mm	134	145
– combustion	direct injection	
– rotation direction (from the flywheel)	anti–clockwise	
– nominal speed ..... rpm	2200	
– max. power (ECE 120 R) ..... kW	203	221
– max. power (with Power Boost) ..... kW	–	265
– oil sump capacity without filters ..... litres	29.5	
– oil sump capacity with filters ..... litres	32	
– fuel tank, capacity ..... litres	620	
– DEF tank, capacity ..... litres	80	
– radiator, circuit capacity ..... litres	56	
ELECTRICAL COMPONENTS		
BATTERY	12 V	
– capacity (20h) ..... A/h	200	
– peak current ..... A	1200	
STARTER MOTOR	12 V	
ALTERNATOR	14 V	
– charging capacity ..... A	150	

	X5	X6
TRANSMISSION		
GEARBOX	with front engagements	
– gears .....no.	4	
UNLADEN WEIGHT		
– total weight of the 2WD combine without header, with straw chopper and with the grain tank empty kg	12650	13400
– front weight ..... kg	7950	8500
– rear weight ..... kg	4700	4900
– total weight of the 4WD combine without header, with straw chopper and with the grain tank empty kg	12830	13680
– front weight ..... kg	7950	8500
– rear weight ..... kg	4880	5180
MAXIMUM WEIGHTS TECHNICALLY ACCEPTABLE ON PUBLIC ROADS **Note:** *The following weights refer to Italian approval and are disp layed on the respective approvals tag; for all other countries, please check the maximum weights displayed in th e vehicle registration documents.*		
– total weight ..... kg	18100	
– front weight ..... kg	14500	
– rear weight ..... kg	5800	

	X5AL	X5BL	X6AL
FEEDING DEVICE			
CUTTING TABLE	grain header		
– minimum and maximum cutting height mm	50 ÷ 1320		
– cutting width	16 ft (m 4.80), 18 ft (m 5.40), 20ft (m 6.00), 23 ft (m 7.00), 25 ft (m 7.60)		
– cutting frequence strokes/minute	1244		
– GSAX device	standard		
– auger	double–screw type with toothed torque limiter		
– retractable fingers	along the full width of the auger and fitted on self–lubricating bushes		
– diameter of retractable fingers mm	16		
– reel	six bar with closed spider frames		
– drive	hydraulic		
– vertical and horizontal positioning	electrohydraulically operated		
– speed variator	hydraulically operated (speed 0–55 rpm)		
ELEVATOR	multi–purpose type		
– lower roller	floating		
– feed roller (PFR)	with parallel fingers and toothed torque limiter		
– feed roller fingers diameter mm	16		
– bar supporting chains no.	3		4
– bars no.	30		
– protection no.	spring–loaded safety clutch		
– upper shaft speed rpm	425		
– lower shaft speed rpm	622		
– elevator drive belt	3HB multiple V–belt		
THRESHING UNIT			
– stone trap	on the concave inlet which can be disconnected and removed (for inspection)		
grain/maize BEATER	with 8 beating bars and 8 backing bars		
– type for rice	12 toothed bars with cast iron support		
– housing width mm	1346		1600
– beater width mm	1331		1585
– diameter mm	600		
– variator	with two belts		
– variator control	electrohydraulic		
– rotation speed (loaded) rpm	380 ÷ 1100		430 ÷ 1210

	X5AL	X5BL	X6AL
CONCAVE - control	independent front and rear opening, adjustable from the driver's seat		
- area ... m^2	0.83		0.99
Cereal type: - clearance (between wire centers) ... mm	14.1		
- wire arrangement ... mm	alternately 403 and 630		
- wrap angle ...	106°		
- wire diameter ... mm	3,5		
- total number of wires ... no.	93		111
- bars ... no.	12		
Maize type: - clearance (between wire centers) ... mm	24		
- wrap angle ...	106°		
- wire diameter ... mm	6		
- bars ... no.	9		
Rice type: - threshing sections ... no.	1 (with three rows of spikes)		
- spikes ... no.	77		90
- wrap angle ...	106°		
Universal type: - bars ... no.	17		
- wire diameter ... mm	6		
- wrap angle ...	102°		
CONCAVE EXSTENSION (rake) - bars ... no.	2		
- wrap angle ...	14°		
REAR BEATER - vanes ... no.	4; removable from inside the grain tank		
- control ...	4HB multiple V-belt		
- rotation speed empty/loaded ... rpm	820		
REAR BEATER GRID - concave wrap angle ...	52°		
- concave area ... m^2	0.44		0.53
- bars ... no.	6		
- clearance ... mm	104		
- wire diameter ... mm	6		
- concave to rear beater clearance ... mm	25		

	X5AL	X5BL	X6AL
MULTI CROP SEPARATOR	electrically–adjustable concave position		
– tines no.	70		80
– diameter mm	600		
– width mm	1310		1565
– normal rotation speed rpm	750		
– reduced rotation speed rpm	410		
– control	V–belt		
MULTI CROP SEPARATOR GRID	can be disconnected electrically		
– bars no.	8		
– wire diameter mm	6		
– wrap angle	57°		
– area m^2	0.46		0.54
– clearance mm	52		
– Multi Crop Separator to concave clearance mm	25 ÷ 40		
STRAW WALKERS no.	5		6
– grids and steps no.	5 and 4		
– lenght mm	4256		
– separation area m^2	5.73		6.81
– rotation speed rpm	177		
CLEANING UNIT			
FAN	with adjustable air capacity		
– rotation speed rpm	350 ÷ 1050		
– reduced rotation speed rpm	270 ÷ 840		
– vanes no.	4		
– control	V–belt		
MAIN GRAIN PAN	fixed; with front access for maintenance		
– movement	alternating, opposit to bottom sieve		
– control shaft cycles/min	315		
– control	double V–belts		
– grain pan width mm	1340		1600
– grain pan lenght mm	1723		
– grain pan area m^2	2.31		2.76
– grain pan rake area m^2	0.255		0.304
UPPER SIEVE	with adjustable sieve		
– upper sieve width mm	1340		1600
– upper sieve length mm	1963		
– upper sieve area m^2	2.63		3.14

	X5AL	X5BL	X6AL
LOWER SIEVE	with adjustable sieve		
– lower sieve width mm	1340		1600
– lower sieve lenght mm	1525		
– lower sieve area m^2	2.04		2.44
RETURNS	to cylinder		
– conveyed by	returns auger and elevator		
– returns auger speed rpm	315		
GRAIN TANK			
– crop conveyed by	tank filling elevator and tank filling auger into the middle of the grain tank		
– auger unloading speed rpm	388		
– capacity litrs	8600		
– unloading auger drive	powerband belt, chain and angle gear		
– overload protection	shear bolt		
– lenght of unloading tube m	5.00		
– unloading speed litres/sec	105		
– unloading height mm	4450		
HYDRAULIC SYSTEM			
– oil tank capacity litres	36		
– table hydraulics pump oil flow litres/min	37.5		
– table control valve max. pressure bar	200		
– auxiliary hydraulics pump oil flow litres/min	4		
– auxiliary hyd. control valve max. pressure bar	85		
– hydrostatic steering pump oil flow litres/min	15.5		
– powersteering pump displacement cm^3/rev	125		
– max. pressure bar	140		
– anti–shock valve max. pressure bar	200		
– intake filter micron	150		
– return filter micron	16		
– levelling pump capacity litres/min	50.5		
– levelling circuit max. pressure bar	200		

	X5AL	X5BL	X6AL
HYDROSTATIC SYSTEM			
– oil tank capacity ..... litres	36		
– pump displacement ..... cm^3/rev	130		
– pump speed ..... rpm	2450		
– pressure relief valve setting ..... bar	420		
– motor displacemet ..... cm^3/rev	100		
– return filter ..... micron	16		
– pressure filter ..... micron	10		
ENGINE			
– make	AGCO SISU POWER		
– type (see frames in Section 10)	7.4 CTA 4V		8.4 CTA 4V
– tipo (see frames in Section 10)	7.4 AWI. 747		8.4 AWI. 708
– cylinders ..... no.	6		
– displacement ..... cm^3	7365		8419
– bore ..... mm	108		111
– stroke ..... mm	134		145
– combustion	direct injection		
– rotation direction (from the flywheel)	anti–clockwise		
– nominal speed ..... rpm	2200		
– maximum power (ECE 120 R) ..... kW	203		221
– maximum power (with Power Boost) ..... kW	–		265
– oil sump capacity without filters ..... litres	29.5		
– oil sump capacity with filters ..... litres	32		
– fuel tank, capacity ..... litres	600 (*) or 620 (**)		
– DEF tank, capacity ..... litres	80 (only with AWI engines)		
– radiator, circuit capacity ..... litres	56		
ELECTRICAL COMPONENTS			
BATTERY	12 V		
– capacity (20h) ..... A/h	150 (*) or 200 (**)		
– peak current ..... A	650 (*) or 1200 (**)		
STARTER MOTOR	12 V		
ALTERNATOR	14 V		
– charging capacity ..... A	150		

* on X5AL, X5BL and X6AL models with a Stage IIIA engine (see frames in Section 10);
** on X5AL, X5BL and X6AL models with a Stage IIIB engine (see frames in Section 10).

	X5AL	X5BL	X6AL
TRANSMISSION			
GEARBOX	with front engagements		
– gears .....no.	4		
WEIGHT			
– total weight of the combine without header, with straw chopper and with the grain tank empty ... kg	14140	14780	14660
– front weight ..... kg	8800	9520	9180
– rear weight ..... kg	5340	5260	5480
MAXIMUM WEIGHTS TECHNICALLY ACCEPTABLE ON PUBLIC ROADS **Note:** *The following weights refer to Italian approval and are disp layed on the respective approvals tag; for all other countries, please check the maximum weights displayed in th e vehicle registration documents.*			
– total weight ..... kg	18100		
– front weight ..... kg	14500		
– rear weight ..... kg	5800		

CAPACITIES AND SPECIFICATIONS

PARTS TO BE FILLED	QUANTITY dm^3 (Litres)		INTERNATIONAL SPECIFICATION
	X5	X6	
Engine cooling system	56		CUNA 956–16
Fuel tank	620		EN 590
DEF tank	80		DIN 70070 ISO 22241
Engine sump and filter Air compressor (maintenance)	29.5 and 2.5 0.25		15W–40, API CJ4 15W–40, ACEA E9
Brake fluid tank and circuit	0.30		NHTSA 116 DOT 4 SAE J 1704
Gearbox and differential housing	12		API GL5 SAE 80W–90
Final drives	5.5x2		
Bottom angle gear for unloading auger	0.50		
Auxiliary hydraulic system tank and hydrostatic drive (system)	36 (65.5)	36 (65.5)	DIN 51524 Part 2 HV 46 ISO VG 46 HV
Angle gear for filling elevator	0.22		NLGI 2
Top angle gear for unloading auger	0.15		
Angle gear for chaff spreader	0.35		
Automatic air conditioning compressor – DELPHI V5–VDA	0.26 (210 grams)		–
Air–conditioning system	2500 grams		–
Grease nipples	–		NLGI 2
Oilers	–		Biodegradable ISO VG 46
Windscreen wash	1.50		CUNA 956–11

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