

COUGAR 1400
COUGAR 1400 RC

Operator's Manual

SERVICE & PARTS

1 Contents

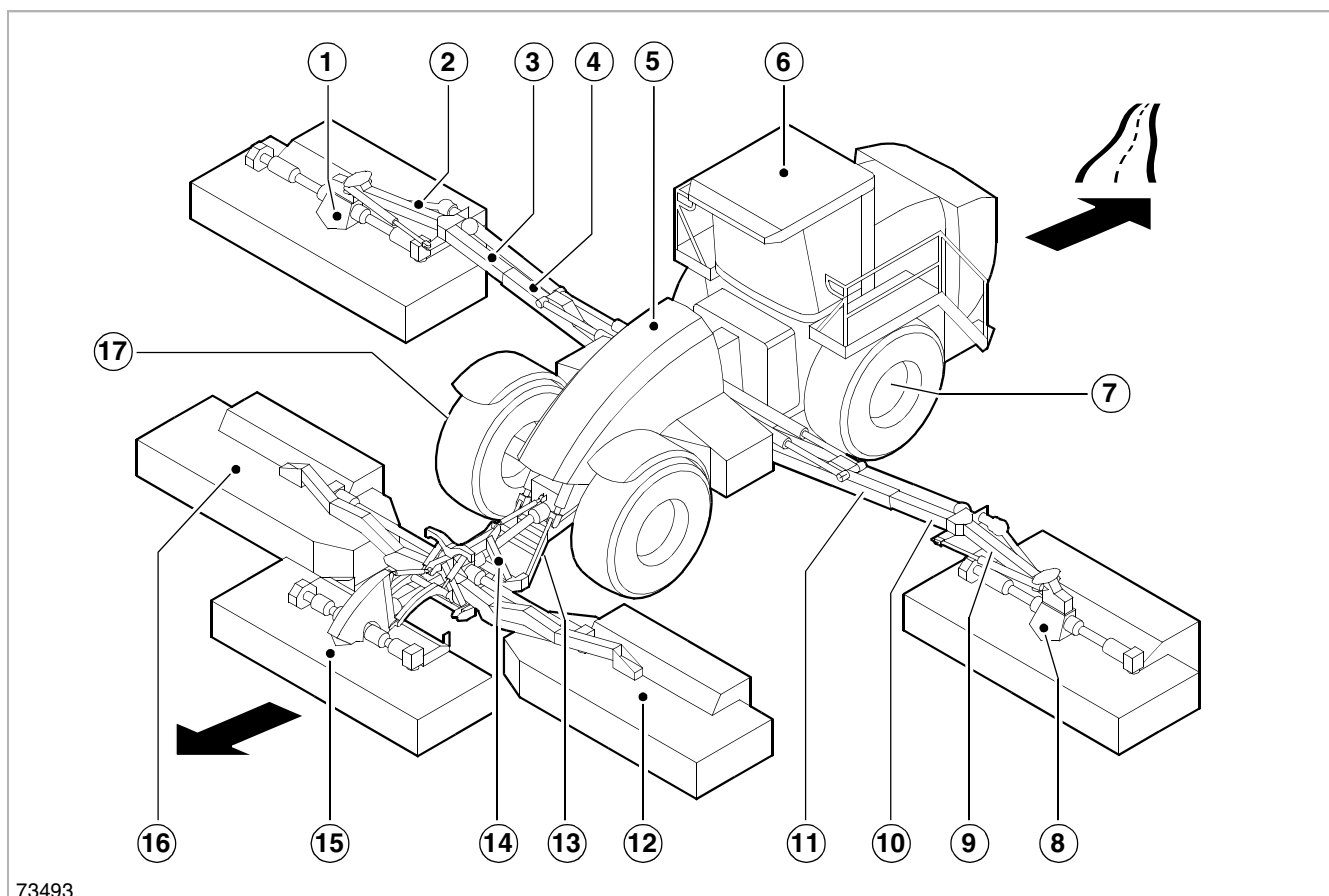
1. Contents	4	REHEAT operation	
2. Machine description	9	(demisting cabin windows)	46
3. Introduction		Displaying the outside temperature	47
3.1. Introduction	10	Changing the temperature display to ° Fahrenheit	47
3.2. Validity	10	Heating the leg area	47
4. General instructions		Fault indicator	48
4.1. Road travel	11	Temperature sensor F0 fault indicator (cabin, blue)	48
4.2. Of special importance	12	Temperature sensor F1 fault indicator (outlet, yellow)	48
4.3. Identification plate / serial number	13	Temperature sensor F2 fault indicator (outside, red)	48
Identification plate / machine number	14	7.3. Mirror	49
Engine serial number	14	External mirror (A) "Road Travel"	49
Identification plate, auxiliary gearbox	15	Switching on the mirror heating	50
Transmission identification plate	15	Adjusting "Working" mirrors	50
Axle identification plate	15	Starting mirror (optional equipment)	51
Identification plate of telescopic outrigger on mower unit, centre left	16	7.4. Adjusting the lighting	52
Identification plate of telescopic outrigger on mower unit, centre right	16	Driving lights	52
Identification plate of mower units, centre left / right and front centre	17	Working lights	53
Identification plate of mower unit, front left	17	Sidefinder (optional equipment)	54
Identification plate of mower unit, front right	18	Pathfinder lighting	55
Identification plate of hitch frame, mower unit front	18	7.5. Roll-up sun blinds	56
5. Safety Rules		Sun blinds front / back	56
5.1. Safety Rules	19	Side sun blinds	56
5.2. Wheel chocks	25	7.6. Cabin roof	57
Applying the wheel chocks	25	Opening the cabin roof	57
5.3. Battery isolator switch	26	Closing the cabin roof	57
5.4. Safety decals with pictorials	27	7.7. Control panel	58
6. Specifications		7.8. Central electrical system	59
6.1. CLAAS Cougar 1400 / 1400 RC	37	Electronic components (D)	59
Engine	37	Modules (A)	59
Ground drive	37	Fuses (F)	60
Steering	37	Relays (K)	61
Brakes	37	Main fuse	61
Tyres and air pressures	38	7.9. Adjusting the operator's seat	62
Hydraulic system	38	7.10. Adjusting the steering column	65
PTO drives	38	Swing the steering column downwards	65
Tightening torques	38	Swinging the steering column upwards	65
Mower units	39	Adjusting the steering wheel height	65
Dimensions	39	Vehicle information unit	66
7. Prior to operation – basic machine	40	Multifunction switch	66
7.1. Cabin	40	7.11. Multifunction handle	67
Roof console – overview	40	7.12. Ground speed control lever	68
7.2. Air conditioner	42	7.13. Windscreen washer	69
Operating and display elements	42	Windscreen washer – front screen	69
Putting the air conditioner into operation	43	Windscreen washer – side windows (additional equipment)	69
Adjusting the cabin temperature	43	7.14. Tyres	71
Manually setting the evaporator fan speed	44	Mudguards on the mower unit axle	71
Activating ECON mode	45	8. Prior to operation – mower units	
Deactivating ECON mode	45	8.1. Check and observe the following prior to operation!	72
		8.2. Hitching up front mower units	73
		8.3. Prop stands	75
		Raising prop stands	75
		Lowering prop stands	75
		8.4. Hitching up / parking the front mower units	76
		8.5. Fitting the mower blades	77
		8.6. Swath plates	78

8.7. Accessory equipment for mower unit	79	Working with single mower units	131
Warning beacon	79	Recommendation for environmental protection	132
Additional clearance lights (optional equipment)	79	Cutting height	134
High cutting skids (B03 0020)	81	Swath width COUGAR 1400	136
9. Operation – basic machine		Swath width COUGAR 1400 RC	139
9.1. Driving the Cougar	82	Conditioner COUGAR 1400	140
Starting the engine	82	Mowing without conditioning effect (COUGAR 1400 RC only)	141
Ignition lock	83	10.4. Transport position	143
Starting the engine	83	10.5. Emergency operation - mower units	146
Select steering programme	84	11. Operation – CEBIS	148
Foot switch "Crab steer mode"	84	11.1. CLAAS CEBIS on-board information system	148
Starting to drive	85	11.2. CEBIS monitor and rotary switch	149
Select the gear	85	Keypad C	149
Adjusting the engine speed	86	Rotary switch D	149
Using the driving control lever	87	Multi-function controller M	149
Engaging / disengaging the differential locks	88	Screen areas E (Road view)	150
Engaging the automatic differential lock	88	Screen areas E (Work view)	151
Manual engagement of the differential lock	88	11.3. Navigation	152
Stopping	88	11.4. Status display of mower units	153
Stopping with the driving control lever	89	11.5. "Settings" Menu	154
Stopping with the foot brake	89	CLAAS data set	154
Brakes	90	Custom settings	154
Foot brake	90	Current data set	154
Parking brake	91	Calling the "Settings" menu	155
Parking the vehicle	91	Display settings	156
Towing the vehicle	92	Loading settings	157
Emergency operation - basic machine (Limp-Home)	94	Changing the settings	158
Rotating the driver's cabin	96	Storing the current settings	159
Reversing fan	97	11.6. "Vehicle" menu	160
Manual activation of recirculation fan	97	Calling the "Vehicle" menu	161
10. Operation – mower units		Adjusting the working speed	162
10.1. Overview of controls	99	Adjusting the working speed directly	163
Control panel	100	Programming the reversing fan	164
Multifunction handle	101	Adjusting the type of actuation for the reversing fan	165
Reversal switch M16	102	Adjusting the reversing interval	167
Master switch (S4) "Mower unit drive"	102	Adjusting the duration of fan reversal	168
Automatic function	103	Setting the field travel mode	169
Semi-automatic function	104	Adjusting the steering	170
Sequence control	104	Steering programs	170
Manual operation	105	4-wheel steering with regaining – standard steering	170
Example "Semi-automatic function"	105	4-wheel steering without regaining	171
Example "Manual operation"	108	Crab steer mode	171
10.2. Functions	110	Changing the steering program	172
Working position	110	Monitor display - steering programs	173
Hydraulic system	113	Calling up the "Steering" menu	173
Setting the lower / upper links	113	Setting 4-wheel steering	174
Adjusting the lower link	114	Setting crab steer mode	175
Adjusting the upper link	115	Setting maximum crab steering angle	176
Mower unit drive	116	Setting the crab steer mode directly	177
Collision protection	118	Setting up the crab steering angle	178
Headland position	121	Changing the crab steering angle	179
Folded position	123	Displaying the driving information	179
Mower unit floating	124	11.7. "Driving information" menu	180
Enabling mower unit floating	124	Displaying the driving information	180
Working width of mower unit	126	Resetting the service counter	180
10.3. Mowing	128	11.8. "Ground pressure" menu	181
Instructions for mowing	129	Calling the "Ground pressure" menu	181

Setting the float set value	182	12.3. Protective enclosures	283
Setting the float directly	184	Opening the lower engine hood	283
Display of float in the working view	185	Opening the upper engine hood	283
11.9. "Overlap menu"	187	Opening the vehicle hood	283
Calling the "Overlap" menu	187	Closing the vehicle hood	284
Adjusting the overlap set value	187	12.4. Hydraulic system	285
Adjusting the overlap for straight line travel / curve travel ..	188	Pressure accumulator	285
Adjusting the connection overlap	189	Checking the hydraulic oil level	285
Direct adjustment of the overlap for straight ahead travel ..	190	Changing the hydraulic oil	286
Overlap display in the working view	191	Replacing the hydraulic oil filter in the working hydraulics ..	286
11.10. "Headland" menu	192	Replacing the hydraulic oil filter in the drive transmission ..	287
Calling the "Headland" menu	192	Replacing the suction filter	287
Adjusting the headland heights	193	Replacing the venting filter	288
Time-dependent delay	194	Topping up hydraulic oil	288
Speed-dependent delay	196	12.5. Gearbox	289
Changing over the headland mode	196	Drive gearbox	289
Changing the headland settings	197	Checking transmission oil level	289
11.11. "Lifting unit" menu	199	Changing the transmission oil	289
Call the "Lifting unit" menu	199	Topping up transmission oil	290
Adjusting the lifting unit	199	Transfer gearbox engine take-off	290
Adjusting the lower link	199	Check oil level in transfer gearbox	290
Adjusting the upper link	201	Changing the oil in transfer gearbox	290
11.12. "Maintenance menu"	202	Topping up the oil in transfer gearbox	291
Call the "Maintenance" menu	202	Transfer gearbox of mower units	291
"CEBIS" menu	203	Check oil level in transfer gearbox	291
Call the "CEBIS" menu	203	Changing the oil in mower unit transfer gearbox	291
"Monitor contrast" menu	204	Topping up the oil in mower unit transfer gearbox	292
Direct adjustment of monitor contrast	204	12.6. Axles	293
"On-board Diagnostics" menu	205	Check planetary gear oil level	293
"Emergency adjustment" – of mower units	207	Changing the planetary gear oil	294
Calling the "Emergency adjustment" menu	207	Check differential oil level	294
"Limit stops" menu	209	Changing the differential oil	295
Calling the "Limit stops learning" menu	209	12.7. Chassis	296
"End stops" menu – Mower unit	210	Wheels / tyres	296
"Pulses per 100 m" learning menu	212	Check tightening torques of wheel nuts / wheel bolts	297
Menu "Limit stops" – ground speed control lever / hydrostat	213	12.8. Air conditioner	298
"CEBIS Settings" menu	216	Checking / cleaning the condenser	298
Calling the "Settings" menu	216	Checking the refrigerant level	298
"Units" menu	217	Checking the moisture saturation of the filter drier	299
"Language" menu	218	12.9. Cabin	300
Setting the menu "Time / Day"	219	Cleaning / replacing the cabin filters	300
"Monitoring" menu	220	Cleaning the units located in the cabin roof	301
"Counter" menu	221	Checking the windscreen washer	302
Calling the "Counter" menu	222	12.10. Compressed air system / brakes	303
Resetting the "Day" counter menu	223	Compressed air connection point	303
11.13. Faults and remedies	224	Take care when removing air	303
Fault signal / long alarm signal	225	Checking / tightening the retaining straps	304
Warning signal / three alarm signals	226	Checking / cleaning the drain valve	304
Information signal / one alarm signal	226	Checking the pressure regulator	305
Emergency mode	227	Checking the safety valve	305
11.14. Fault code table	229	Releasing the parking brake	306
12. Maintenance – basic machine	273	12.11. Drive belts centre mower unit left / right	307
12.1. Important maintenance instructions	273	Removing the drive belts	307
Important maintenance instructions and safety rules	273	Fitting and tensioning the drive belts	308
12.2. Maintenance schedules and lubricants charts	280	12.12. Drive belts, front PTO shaft	309
Maintenance schedule – basic machine	280	Removing drive belts, front PTO shaft	309
Lubricants chart – basic machine	282	Fitting and tensioning the drive belts	310
		12.13. Cleaning and care	312

12.14. Recommendations for winter storage	312	Angle sensor on centre left and right mower unit swing arm	359
13. Maintenance – mower units	313	Angle sensor of hydraulic system	360
13.1. Important maintenance instructions	313	Measuring cable	361
Hydraulic system	313	13.16. Clutches	363
Energy-storage devices / springs	313	13.17. Drive shaft	364
Bolts	313	General information on universal drive shafts	364
Lubrication	313	Fitting note	364
Protective devices (guard frames)	313	Removing and mounting guard cones	365
13.2. Maintenance and lubrication charts	314	13.18. Hydraulic system	368
Maintenance schedule - mower units	314	Hydraulic hoses	368
Lubricant chart – mower units	316	Pressure accumulator	368
13.3. Drive diagram COUGAR 1400	317	Hydraulic cylinder with vacuum valve	369
13.4. Drive diagram COUGAR 1400 RC	318	13.19. Lubrication holes	370
13.5. Drive Systems	319	13.20. Screw connections	370
Gearboxes	319	13.21. Connecting elements	370
Main gearbox in hitch frame	320	13.22. Cleaning and care	371
Main gearbox of front centre mower unit	321	13.23. End of season storage	371
Gearbox of front left and right mower unit	322	14. Maintenance – engine	372
Side gearbox of front centre mower unit, centre left and right	323	14.1. Important maintenance instructions	372
Main gearbox of centre left and right mower unit	324	Important maintenance instructions and safety rules	372
Drive train of mower unit left / right	325	14.2. Maintenance and lubricants chart	374
13.6. V-belts	326	Maintenance schedule - engine	374
Checking V-belts	326	Lubricant charts – engine	375
Tensioning the conditioner drive belts, COUGAR 1400	326	14.3. Engine Overview	376
Conditioner, COUGAR 1400 RC	328	14.4. Fuel system – engine oil – V- belts	377
Tensioning drive belts	328	Fuel System	377
Replacing drive belts	328	Fuel tank	377
13.7. Mower head	333	Manual fuel pump with fuel pre-cleaner	378
13.8. Wrapping guard	335	Fuel filter	378
13.9. Mower blades	336	Checking the water separator / draining water	379
Mower blade box	337	Replacing the fuel pre-filter cartridge	379
Replacing the mower blades	337	Replacing the fuel pre-filter cartridge (optional equipment)	380
Quick-change system for mower blades	338	Venting the fuel system	380
Mower blade mounting studs (mower blade quick change system)	342	Engine oil level check	381
Bolted mower blades	344	Changing the engine oil	381
Mower blade fixing (bolted version)	345	Changing the oil filter	382
13.10. Cutting discs	347	Changing breather filter	383
Replacing cutting discs	347	Top up engine oil	383
13.11. Conditioning tines	349	Ventilator and three-phase alternator drive belts	384
Installing and removing the tines	349	Checking the drive belt condition	384
13.12. Conditioner rollers	350	Checking the screwed connections	384
Adjusting synchronous running	350	14.5. Cooling system	385
Adjusting the roller spacing	350	Coolant	385
13.13. Spring adjustment	352	Observe coolant type	385
Adapting front centre mower unit to ground contour	352	Identifying the coolant type	385
Adapting centre left and right mower unit to ground contour	352	Topping up the coolant	386
Restricting adaptation of centre left and right mower unit to ground contour	353	Change the coolant	387
Tension springs - conditioner rollers	354	Coolant dilution relationship	390
13.14. Telescopic outrigger	355	Draining the coolant	390
Adjusting the play	355	Topping up coolant	391
Lubricating the telescopic outriggers	356	Over-pressure	392
13.15. Electrical	357	Coolant temperature	392
Speed sensor up to serial no. 788 0 1051	357	Clean the water cooler, oil cooler and intercooler	393
Speed sensor from serial no. 788 0 1052	358	Cleaning rotor	394
		14.6. Air filter – battery – engine faults	395
		Dry-type air filter	395
		Warning device	395

Cleaning the air filter suction sieve	395
Cleaning dry-type air filter	395
Replacing the safety cartridge	397
Battery	398
Checking the acid level and acid strength	399
Threephase alternator	399
Engine faults, causes and remedies	400
14.7. Cleaning and care	402
14.8. Over-wintering suggestions for the engine	402
Engine preservation	402
15. Lubrication chart – basic machine	
15.1. Lubricants and notes	403
16. Lubrication chart – mower units	
16.1. Lubricants and notes	409
17. Index	422



2 Machine description

Pos. no.	Designation	
1	Centre right mower unit	(MR)
2	Folding outrigger right	
3	2nd stage telescopic outrigger right	
4	1st stage telescopic outrigger right	
5	Basic machine:	
6	Cabin	
7	Main axle	
8	Centre left mower unit	(ML)
9	Folding outrigger left	
10	2nd stage telescopic outrigger left	
11	1st stage telescopic outrigger left	
12	Front left mower unit	(FL)
13	Lifting unit (three point linkage)	
14	Mounting frame	
15	Front centre mower unit	(FM)
16	Front right mower unit	(FR)
17	Mower unit axle	

3 Introduction

3.1 Introduction

This operator's manual is intended primarily for the machine operator and provides information on the use, adjustment, operation and maintenance of the self-propelled mower unit COUGAR.

Follow the advice on maintenance and service for your machine in order to obtain maximum performance and long service from your COUGAR.

The regular inspections of your machine should be carried out by your CLAAS specialist workshop. Neglect in maintenance or service, and incorrect operation will result in poor machine efficiency and loss of valuable time. With correct operation and maintenance, your machine will always give reliable service.

Your CLAAS Service Department

3.2 Validity

This operator's manual is valid for all self-propelled mower units:

COUGAR 1400 / 1400 RC:

Basic machine:

Type 789

from serial number 789 0 0011

Mower unit

Type 788

from serial number 788 0 1001

4 General instructions

4.1 Road travel

In other countries, different traffic regulations may apply. In the event of variations from the manufacturer's data, the regulations of the country concerned always take precedence.

Apart from his driving licence, the operator of the self-propelled mower unit must always carry a copy of the Vehicle Type Approval supplied by the manufacturer, a warning triangle, and at least 2 wheel chocks.

When travelling on public roads with the self-propelled mower unit, all specifications and constraints mentioned in the copy of the Vehicle Type Approval (§ 18 , para. 5 StVZO) or in the vehicle's registration documents must be observed.

For machines with excess width (width across tyres), instead of the copy of the Vehicle Type Approval, the driver must carry an operating permit for the individual vehicle and an exemption certificate in accordance with § 70, para. 1, No. 1 and 2 of the StVZO. In addition, all the specifications and constraints mentioned in the Vehicle Type Approval for individual vehicles or in the exemption certificate must be observed. Requirements for the allocation of an exemption certificate vary from one federal state to another. Suitable warning signs must be attached in accordance with the relevant national regulations for marking excessively wide road vehicles, (e.g. warning signs at front and rear, two yellow – warning beacons– , etc.).

If parts of the self-propelled mower units whose nature or operation can be a hazard to other road users are changed subsequently, the Vehicle Type Approval becomes invalid, and a new Vehicle Type Approval must be applied for. For this, the machine must be checked and approved by the local Test Centre for Vehicle Safety (TÜV) to permit allocation of the certificate (§ 19 para. 2 StVZO).

If you have any doubts whether your Vehicle Type Approval is invalid, please contact us, the manufacturers, directly.

Number plates

As a self-propelled machine with a maximum speed of more than 20 km/h, the self-propelled mower unit is subject to the relevant number plate regulations.

Warning beacon

When driving on public roads and paths, warning beacons may only be fitted in the event of excess width

Working lights

The working lights must always be switched off when driving on the road!

All self-propelled mower units fulfil the safety regulations in accordance with the EU Machine Directive, and are given a CE mark and a Declaration of Conformity.

4.2 Of special importance

To prevent accidents, the instructions of the operator's manual must be read by everyone who uses the machine and is involved with its maintenance, servicing or inspection. Especially the sections "Safety Rules" and "Prior to Operation" should be read and observed.

Use only original spare parts, accessories and ancillary equipment!

Parts that have not been manufactured by CLAAS or have not been checked and approved by CLAAS, can change the machine's specified design characteristics, with possible adverse effects on the driving and / or working safety of the machine!

CLAAS are in no way liable for any damage or personal injury caused through the use of other than original or approved CLAAS parts, accessories, and ancillary equipment.

Technical data, dimensions and weights are understood with the usual tolerances.

While driving, the terms "front", "back", "right" and "left" always refer to the forward direction of travel.

At a standstill, the terms "front", "back", "right" and "left" always refer to the machine's working direction. The term front axle / mower unit axle thus refers to the axle on the mower unit side of the vehicle.

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com