
Customer reference case

Agriculture

Axial combines

SKF agricultural Y-bearing units



SKF agricultural Y-bearing units help drive uptime for axial combines

Relubrication-free bearing units with a high-performance seal helped AGCO reduce costly warranty issues that were resulting from bearing failures caused by contamination.

During operation, cleaning shoe bearings inside axial combines are exposed to a barrage of grain and crop materials. During washdowns, they can be subjected to a high-pressure mix of water and cleaning agents. If any of these contaminants breach the seals, it's only a matter of time until the bearings fail prematurely.

For leading global agricultural equipment manufacturer AGCO, failures were occurring when its Massey Fergusson axial combines were subjected to these tough conditions. The cleaning shoe bearings inside these combines were failing within 100 hours of operation. With resulting warranty issues and costs becoming a serious concern, AGCO turned to SKF for a solution.

SKF engineers suggested SKF agricultural Y-bearing units. Featuring an extremely robust, five-lip seal, the relubrication-free units had been proven to outlast conventional bearings significantly. In SKF test trials, agricultural Y-bearing units lasted the equivalent of four years or more in the field, compared to the one- to three-year lifecycles of conventional bearings.



500 more hours of field testing

Eager to see how the SKF units would perform in their axial combines, AGCO engineers began conducting extensive field tests of their own. The bearings were subjected to 500 hours of field operation, running under load, speed, temperature and varying environmental conditions. The tests also included several types of crops and grains.

The result? 500 trouble-free hours later, AGCO selected SKF Y-bearing units to replace the failing shoe section bearings. In fact, AGCO intends to use Y-bearing units for a range of similar applications with similar warranty problems. Along with eliminating costly warranty issues, SKF Y-bearing units will be helping the company strengthen its customer relationships and reliable brand image in several other ways.

Due to their increased service life and re-lubrication-free design, for example, SKF agricultural Y-bearing units reduce maintenance and ownership costs. Farmers can spend less time and money on costly repairs and relubrication, and more time on profitable activities.

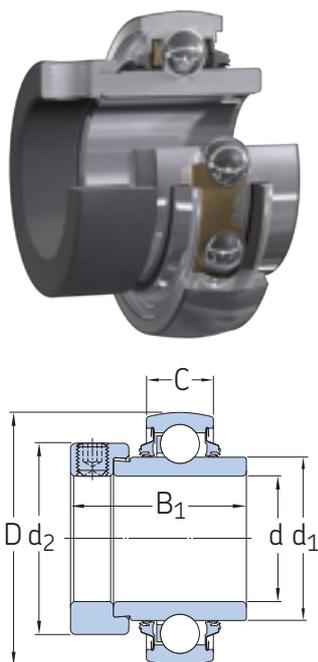
SKF agricultural Y-bearing units also reduce grease consumption, saving up to 200 kg over the service life of a machine. The robust, five-lip seal design also helps keep grease from contaminating crops, soil, or groundwater supplies. Farmers can reduce their environmental impact, while AGCO can demonstrate its commitment to more environmentally friendly designs.

Features

- Vulcanized five-lip patented seal design
 - Stamped steel insert
 - Low-friction compound
- Lubricated-for-life
- Eccentric locking collar
- Optional corrosion resistance

Benefits

- Reduced warranty issues and costs
- Improved customer impressions
- Increased farm productivity
- Reduced lubrication and ownership costs
- Extended bearing service life
- Reduced environmental impact



Designation	Dimensions				Basic load ratings			Fatigue load limit P_u		
	d	D	B_1	B	C	d_1 ~	d_2 max		C_0	
mm/inch mm					N					
YELAG 204	20	47	43,7	34,2	14	28,2	33,3	12 700	6 550	280
YELAG 205	25	52	44,4	34,9	15	33,7	38,1	14 000	7 800	335
YELAG 205-100	1									
YELAG 206-102	1,125	62	48,4	36,5	18	39,7	44,5	19 500	11 200	475
YELAG 206	30									
YELAG 206-103	1,1875									
YELAG 207-104	1,25	72	51,1	37,6	19	46,1	55,6	25 500	15 300	655
YELAG 207-106	1,375									
YELAG 207	35									
YELAG 207-107	1,4375									
YELAG 208-108	1,5	80	56,3	42,75	21	51,8	60,3	30 700	19 000	800
YELAG 208	40									
YELAG 209-111	1,6875	85	56,3	42,75	22	56,8	63,5	33 200	21 600	915
YELAG 209-112	1,75									
YELAG 209	45									
YELAG 210-115	1,9375	90	62,7	49,15	22	62,5	69,9	35 100	23 200	980
YELAG 210	50									

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