

Tooling Inspection Final Checking list

Date: _____

Revision: _____

Project Name: _____

Part Name: _____

Tool Name: _____

Tool source: _____

Tool Steel: _____

Resin: _____

Project Number: _____

Part Number: _____

Tool Number: _____

Customer: _____

No of Cavities: _____

Machine Size: _____

CAVITY

What is the customer required cavity hardness? _____

What is the hardness? _____

Is the material type and hardness stamped on bottom surface of each cavity block? _____

☐ YES

☐ NO

What is the required surface finish on the cavit? _____

☐ YES

☐ NO

What is the cavity surface finish? _____

☐ YES

☐ NO

Is any EDM visible on cavity surface? _____

☐ YES

☐ NO

Does the cavity surface have a good visual appearance free of hammer marks, dints, and machining marks deemed unexcept? _____

☐ YES

☐ NO

If yes what are the issues? _____

Are cavity molding surfaces free of scratches? _____

☐ YES

☐ NO

Are cutter marks visible on the cavity surface? _____

☐ YES

☐ NO

Does the cavity require texturing? _____

☐ YES

☐ NO

What is the customer required texture? _____

☐ YES

☐ NO

Is the cavity textured? _____

☐ YES

☐ NO

If so what is the texture type? _____

Are ribs polished in line of draw? _____

☐ YES

☐ NO

Is any EDM visible in the ribs? _____

☐ YES

☐ NO

Are cutter marks visible in the ribs? _____

☐ YES

☐ NO

CORE

What is the customer required core hardness? _____

What is the hardness? _____

Is the material type and hardness stamped on bottom surface of each cavity block? _____

☐ YES

☐ NO

What is the required surface finish on the core? _____

☐ YES

☐ NO

What is the core surface finish? _____

Is any EDM visible on core surface? _____

☐ YES

☐ NO

Does the core surface have a good visual appearance free of hammer marks, dints, and machining marks deemed unexceptable? _____

☐ YES

☐ NO

If yes what are the issues? _____

Are core molding surfaces free of scratches? _____

☐ YES

☐ NO

Are cutter marks visible on the core surface? _____

☐ YES

☐ NO

Does the core require texturing? _____

☐ YES

☐ NO

What is the customer required texture? _____

☐ YES

☐ NO

Is the core textured?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so what is the texture type?		
If so what is the texture and depth?		
Is Recycle Logo required?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are ribs polished in line of draw?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cutter marks visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

SLIDES

Are slides tight?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are slides loose?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the seal off angles under the slides >5°?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If not what angle is it?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are grease fittings installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the slides spring loaded?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is there a positive locking method for open position?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is it?		
Is it capable of holding the slide weight?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are slides equipped with hydraulics?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so are limit switches installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Slide Finishes

What is the customer required hardness?		
What is the hardness?		
Is the material type and hardness stamped on a non molding surface of each lifter or slide?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the required surface finish on the molding surfaces?		
What is the surface finish?		
Are ribs polished in line of draw?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the slides have a good visual appearance free of hammer marks, dints, and machining marks deemed unexceptable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes what are the issues?		
Are the molding surfaces free of scratches?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cutter marks visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

LIFTERS

Are guide bushing installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are grease fittings and lines installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do square lifter have grease groove?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the square lifters made with P20?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so are they nitrided?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the square lifters made with H13?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the customer requested hardness?		
What is the actual hardness?		

Lifter Finishes

What is the customer required hardness?	.....	
What is the hardness?	.....	
Is the material type and hardness stamped on a non molding surface of each lifter or slide?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the required surface finish on the molding surfaces?	.....	
What is the surface finish?	.....	
Are ribs polished in line of draw?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the lifters have a good visual appearance free of hammer marks, dints, and machining marks deemed unacceptable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes what are the issues?	.....	
Are the molding surfaces free of scratches?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cutter marks visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

INSERTS

What is the customer required hardness?	.....	
What is the hardness?	.....	
Is the material type and hardness stamped on a non molding surface of each lifter or slide?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the required surface finish on the molding surfaces?	.....	
What is the surface finish?	.....	
Are ribs polished in line of draw?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the inserts have a good visual appearance free of hammer marks, dints, and machining marks deemed unacceptable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes what are the issues?	.....	
Are the molding surfaces free of scratches?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cutter marks visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are ribs polished in line of draw?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are cutter marks visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

PARTING LINE

Parting lines width.	.....	
surface finish of parting line.	.....	
Relief depth -land width.	.....	
Is any EDM visible in the ribs?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the inserts have a good visual appearance free of hammer marks, dints, and machining marks deemed unacceptable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes what are the issues?	.....	

VENTING

Parting line vent width & depth. _____

Are ejector pins vented? _____

☐ YES ☐ NO

Are runners vented? _____

☐ YES ☐ NO

Are guide pin bushings holes vented? _____

☐ YES ☐ NO

Is last place to fill vented? _____

☐ YES ☐ NO

VISUAL APPEARANCE OF PLATES

WELDING

Is weld map included? _____

☐ YES ☐ NO

Is there any other welding not on the map? _____

☐ YES ☐ NO

If welding was done specify the type of rod used and process? _____

RUNNER & GATES

Is the runner to customer specified size and shape? _____

☐ YES ☐ NO

What is the customer specified size? _____

What is the customer specified shape? _____

Runner

Runner surface finish? _____

Are cutter marks visible on the core surface? _____

☐ YES ☐ NO

Gate

Gate surface finish. _____

What is the required gate? _____

Is any EDM visible in the gate? _____

☐ YES ☐ NO

Are cutter marks visible in the gate? _____

☐ YES ☐ NO

ELECTRICAL, HOT RUNNER

Are customer specified electrical plug/plugs used? _____

☐ YES ☐ NO

Is the customer specified wiring diagram followed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is electrical box/boxes installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is it the customer specified box?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the wiring plaque on the operator side of the mold?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Hot tips, manifold, heaters, thermocouples – bench tested.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Hot tip – drafted, polished in the line of draw.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the customer specified surface contact between the hot drop and cavity?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Hot tip, flush/recessed when hot.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Wires in channels with hold downs and protected.	<input type="checkbox"/> YES	<input type="checkbox"/> NO

COLD RUNNER

Is a sprue puller undercut machined into core?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the sprue puller polished in line with ejection?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
is the ejector pin land 1" below sprue puller undercut?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If not what is it?		

EJECTION SYSTEM

Is the Core sequencing provided on an attached plaque?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If no why?		
Are pressure transducers required?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are pressure transducers installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is mould equipped for Alba connectors?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Knock out pullback stud	<input type="checkbox"/> YES	<input type="checkbox"/> NO
– flush with clamp plate	<input type="checkbox"/> YES	<input type="checkbox"/> NO
– correct thread	<input type="checkbox"/> YES	<input type="checkbox"/> NO
– correct thread depth	<input type="checkbox"/> YES	<input type="checkbox"/> NO
– correct counterbore depth	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are knockout rod extentions required by the customer?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so are they installed, and flush to the surface?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are switches mounted and wired?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is part and runner designed to fall clear?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so does it fall clear?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is part and runner designed for robot pickup?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so does it stay on the mould?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If not why not?		
Does it come freely off the mould?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do we have enough space for robot?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
How was it checked?		
Ejector system – moves freely for the full stroke?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the ejector pin holes in the core square to base?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
How was it checked?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Ejector pins guided square to ejector system?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
How was it checked?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the ejector pin holes in the ejector plate line up with the ejector	<input type="checkbox"/> YES	<input type="checkbox"/> NO
pin bores in the core?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
How was it checked?		

Cavity ejection

2 stage ejection

Does the mold have multi stage ejection	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Do the latches pocket into the core and cavity plates	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the multi stage ejection use spring loaded latches	<input type="checkbox"/> YES	<input type="checkbox"/> NO
pocketed into cavity plate?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is so are shoulder bolts installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the surface to seat the shoulder bolt spotted flat?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

HYDRAULIC SYSTEM

Does the mold have hydraulic ejection?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are Flow dividers installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are switches mounted and wired?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Ejector system – moves freely?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Ejector pins guided square to ejector system?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

COOLING

Are water lines stamped to customer specifications?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are water lines numbered to customer specifications?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are water lines correct size to customer specifications?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are waterlines counterbored?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the o-rings pocketed on the core retainer plate?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the o-rings pocketed on the core?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Describe o-ring fit in groove		
Are thequality of all o-rings good enough?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Have water lines been pressure tested (10 bars, half hour)?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are there any water leaks?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so where?		
Do the water lines match the plaque?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are all the baffles and plugs installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are Jiffy connectors installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the customer specified fitting installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Fitting names and model numbers.		
Is there enough space between fitting to install all the fitting easily?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are extention pipes used?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so why?		
Water lines connected internally?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Water lines connected hard tubing	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so why?		
Are water jumpers installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are water lines sealed by socket tappedd screw? Not use swarf.	<input type="checkbox"/> YES	<input type="checkbox"/> NO

MOULD FIT TO PRESS

Any obstructions on bottom surface of mould?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If so what are they?		
Is the customer specified locating ring installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the customer specified locating ring size?		
Is the locating ring at least 4MM higher than mold surface?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the customer specified sprue bushing installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is Sprue radius orifice and size?		
Are the eyebolts balance so the mould hangs straight?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Safety Straps (2) (Red or contrasting Yellow).	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Clamp slot size and locations.		
Are they to customer spec.?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Mould Length, Width, Height.		
To swing mould, record corner to corner size.		
What is customer specified K.O. holes size and pattern size?		
Mould K.O. holes size and pattern size.		

MISCELLANEOUS

Should all screws not be machined and cut? Has all been hardened?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Guide pin length.		
Is the customer specified Leader pin fit and installation done?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What is the Leader Pin fit and installation process?		
Return pin length. (nothing contacting cavity)		
Are return pins spring loaded?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Pry bar slots.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Plates numbered and lettered	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Insulation plate.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Gate type used		
Is cashew gate being used.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
cashew gate type (Name of manufacture or homemade)		
Is ejection stroke long enough to fully eject cashew gate?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is shot counter required?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is shot counter installed?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are all screw heads below the surface?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are eyebolt hole threads deep enough to fully seat eyebolt?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If no describe situation		
Are there threaded lifting holes in all parts over 50 lbs (22.7kg)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Have all mold workpieces and spare part been inspected with record?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does the mold have a good visual appearance free of hammer marks, dints, and machining marks deemed unexceptable?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are angled seal that are <5° at least 4rc different or 1 side nitrided?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the material type and hardness stamped on bottom surface of each mold prats	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the customer specified Horn pin fit and installation done?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

What is the Horn Pin fit and installation process?	_____		
Has the mold used the correct material and treatment with certificate?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Has the mold drawing been printed and copied in two copies?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Have the molding condition sheet and sample inspection report prepared?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are the both ends of the lifting bar at least 1MM shorter than mold?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Are date clocks fastened by screws?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO

MOULD IDENTIFICATION

Are the following mold plaques on the operator side of the mold?	_____		
Mold Nameplate	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Mould sequence	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Hydraulic schematic	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Waterline schematics	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Electrical schematics	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Thermocouple schematics	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
special instructions	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is “TOP OF MOULD”. Stamped on the top of the mould?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is the mould painted the customer specified colour?	_____	<input type="checkbox"/> YES	<input type="checkbox"/> NO
What colour is it painted?	_____		
Comments:	_____		

Completed by: _____

Date: _____