



**Finished Mould Checklist**

<b>Program Name:</b>	<u>NL9502</u>	<b>Program No.:</b>	<u>NL9502</u>
<b>Part Name:</b>	<u>314501</u>	<b>Part No.:</b>	<u>314501</u>
<b>Tool Name:</b>	<u>MP1425</u>	<b>Tool No.:</b>	<u>MP1425</u>
<b>Tool Source:</b>		<b>Customer:</b>	
<b>Tool Steel:</b>	<u>H13 HRC 48-52</u>	<b>No. of Cavities:</b>	<u>1X1</u>
<b>Resin:</b>	<u>ABS HF380(LG Chem)</u>	<b>Machine Size:</b>	<u>450T</u>

**CAVITY**

What is the customer required core hardness? HRC 48-52degree  
 What is the hardness? 50 degree  
 Is the material type and hardness stamped on bottom surface of each cavity block?  Yes  No  
 What is the required surface finish on the cavity? SPI D3  
 What is the cavity surface finish? SPI D3  
 Is any EDM visible on cavity surface?  Yes  No  
 Does the cavity surface have a good visual appearance free of marks, dints, and machining marks etc.?  Yes  No  
 If no, what are the issues? \_\_\_\_\_  
 \_\_\_\_\_  
 Are cavity molding surfaces free of scratches?  Yes  No  
 Are cutter marks visible on the cavity surface?  Yes  No  
 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? HRC 48-52degree  
 What is the hardness? 50 degree  
 Is the material type and hardness stamped on bottom surface of each core block?  Yes  No  
 What is the required surface finish on the core? normal polish  
 What is the core surface finish? #400 paper sand  
 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 no, 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? \_\_\_\_\_  
 Is the core textured?  Yes  No  
 If so what is the texture type? \_\_\_\_\_  
 If so what is the texture and depth? \_\_\_\_\_  
 Is Recycle Logo required  Yes  No  
 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

**SLIDES**

Are slides tight?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are slides loose?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are the seal off angles under the slides >5°?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If not what angle is it?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are grease fittings installed?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Are the slides spring loaded?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is there a positive locking method for open position?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
What is it?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is it capable of holding the slide weight?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are slides equipped with hydraulics?	<input type="checkbox"/>	Yes	<input checked="" 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?	HRC 48-52degree			
What is the hardness?	50degree			
Is the material type and hardness stamped on a non molding surface of each lifter or slide?	<input type="checkbox"/>	Yes	<input checked="" 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 checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is any EDM visible in the ribs?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Do the slides have a good visual appearance free of hammer marks, dints, and machining marks deemed unexceptable?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If no, what are the issues?	_____			
Are the molding surfaces free of scratches?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are cutter marks visible in the ribs?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

**LIFTERS**

Are guide bushing installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are grease fittings and lines installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Do square lifter have grease groove?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are the square lifters made with P20?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If so are they nitrided?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are the square lifters made with H13?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
What is the customer requested hardness?	HRC 48-52degree			
What is the actual hardness?	HRC 50degree			

**Lifter Finishes**

What is the customer required hardness?	HRC 55degree			
What is the hardness?	HRC 55degree			
Is the material type and hardness stamped on a non molding surface of each lifter or slide?	<input checked="" 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 checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is any EDM visible in the ribs?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Do the lifters have a good visual appearance free of hammer marks, dints, and machining marks etc.?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If no, what are the issues?	_____			
Are the molding surfaces free of scratches?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are cutter marks visible in the ribs?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

**INSERTS**

What is the customer required hardness? HRC 48-52degree  
What is the hardness? 50degree  
Is the material type and hardness stamped on a non molding surface of each lifter or slide?  Yes  No  
What is the required surface finish on the molding surfaces? \_\_\_\_\_  
What is the surface finish? \_\_\_\_\_  
Are ribs polished in line of draw?  Yes  No  
Is any EDM visible in the ribs?  Yes  No  
Do the inserts have a good visual appearance free of hammer marks, dints, and machining marks deemed unacceptable?  Yes  No  
If yes what are the issues? \_\_\_\_\_  
Are the molding surfaces free of scratches?  Yes  No  
Are cutter marks visible in the ribs?  Yes  No  
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

**PARTING LINE**

Parting lines width \_\_\_\_\_  
surface finish of parting line \_\_\_\_\_  
Relief depth -land width. \_\_\_\_\_  
Is any EDM visible in the ribs?  Yes  No  
Do the inserts have a good visual appearance free of hammer marks, dints, and machining marks etc.?  Yes  No  
If no, what are the issues? \_\_\_\_\_

**VENTING**

Parting line vent width & depth 4X0.2  
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? \_\_\_\_\_  $\Phi 1$   
What is the customer specified shape? \_\_\_\_\_ circular cone  
**Runner**  
Are runner automatic cut?  Yes  No  
Are cutter marks visible on the core surface?  Yes  No  
**Gate**  
Gate surface finish \_\_\_\_\_  
What is the required gate surface finish? \_\_\_\_\_  
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?  Yes  No  
Is electrical box/boxes installed?  Yes  No  
Is it the customer specified box?  Yes  No  
Is the wiring plaque on the operator side of the mold?  Yes  No  
Hot tips, manifold, heaters, thermocouples - bench tested.  Yes  No  
Hot tip - drafted, polished in the line of draw.  Yes  No  
Is the customer specified surface contact between the hot drop and cavity?  Yes  No  
Hot tip, flush/recessed when hot.  Yes  No  
Wires in channels with hold downs and protected?  Yes  No

**COLD RUNNER**

Is a sprue puller undercut machined into core?  Yes  No  
Is the sprue puller polished in line with ejection?  Yes  No  
Is the ejector pin land 1" below sprue puller undercut  Yes  No  
If not what is it? \_\_\_\_\_

**EJECTION SYSTEM**

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

Are the quality of all o-rings good enough?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Have water lines been pressure tested (10 bars, half hour)?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are there any water leaks?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If so where?	_____			
Do the water lines match the plaque?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are all the baffles and plugs installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are Jiffy connectors installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are the customer specified fitting installed?	<input checked="" 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 checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are extension pipes used?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If so why?	_____			
Water lines connected internally?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Water lines connected hard tubing	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If so why?	_____			
Are water jumpers installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Are water lines sealed by socket tapped screw? Not use swarf.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No

### MOULD FIT TO PRESS

Any obstructions on bottom surface of mould?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
If so what are they?	_____			
Is the customer specified locating ring installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
What is the customer specified locating ring size?	Φ150*15mm			
Is the locating ring at least 4MM higher than mold surface?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Is the customer specified sprue bushing installed?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
What is Sprue radius orifice and size?	R12			
Are the eyebolts balance so the mould hangs straight?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Safety Straps (2) (Red or contrasting Yellow).	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Clamp slot size and locations	_____			
Are they to customer spec.?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Mould Length, Width, Height.	450x700x440mm			
To swing mould, record corner to corner size.	843mm			
What is customer specified K.O. holes size and pattern size?	The diameter is 40mm			
Mould K.O. holes size and pattern size.	same			

**MISCELLANEOUS**

Should all screws not be machined and cut? Has all been hardened?  Yes  No

Guide pin. Z 051 1.2067 / 54 ± 2 HRC

Is the customer specified Leader pin fit and installation done?  Yes  No

What is the Leader Pin fit and installation process? DIN ISO 8406

Return pin length. (nothing contacting cavity) 156mm

Are return pins spring loaded?  Yes  No

Pry bar slots.  Yes  No

Plates numbered and lettered.  Yes  No

Insulation plate.  Yes  No

Gate type used direct with sub gate

Is cashew gate being used  Yes  No

cashew gate type (Name of manufacture or homemade)

Is ejection stroke long enough to fully eject cashew gate?  Yes  No

Is shot counter required?  Yes  No

Is shot counter installed?  Yes  No

Are all screw heads below the surface?  Yes  No

Are eyebolt hole threads deep enough to fully seat eyebolt?  Yes  No

If no describe situation \_\_\_\_\_

Are there threaded lifting holes in all parts over 50 lbs (22.7kg)  Yes  No

Have all mold workpieces and spare part been inspected with record?  Yes  No

Does the mold have a good visual appearance free of hammer marks, dints, and machining marks etc.?  Yes  No

Are angled seal that are <5° at least 4rc different or 1 side nitrided?  Yes  No

Is the material type and hardness stamped on bottom surface of each mold part?  Yes  No

Is the customer specified Horn pin fit and installation done?  Yes  No

What is the Horn Pin fit and installation process? \_\_\_\_\_

Has the mold used the correct material and treatment with certificate?  Yes  No

Has the mold drawing been printed and copied in two copies?  Yes  No

Have the molding condition sheet and sample inspection report prepared?  Yes  No

Are the both ends of the lifting bar at least 1MM shorter than mold?  Yes  No

Are date clocks fastened by screws?  Yes  No

**MOULD IDENTIFICATION**

Are the following mold plaques on the operator side of the mold?

Mold Nameplate  Yes  No

Mould sequence  Yes  No

Hydraulic schematic  Yes  No

Waterline schematics  Yes  No

Electrical schematics  Yes  No

Thermocouple schematics  Yes  No

Special instructions  Yes  No

Is "TOP OF MOULD". Stamped on the top of the mould?  Yes  No

Is the mould painted the customer specified colour?  Yes  No

What colour is it painted? \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Completed by: Tom Huang Date: 20140622